MAY 1928

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AMERICAN BUILDER

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THE WORLD'S GREATEST BUILDING PAPER

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With Building Designs In Colors

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NEW *and* a Hound for Speed

THIS new Rex Power-Loader Tilter, like the rabbit hound, is built particularly for one purpose—extra speed.

In other words, you can move this machine from job to job at motor truck speed—and you can pour more concrete per hour on the job.

The new power loader feature gives you increased capacity. You can overlap charging and discharging.

And you can turn out more yards per day with a smaller crew.

Timken bearings make possible a smoother drum action.

Large specially curved drum blades plus the quick tilting device keep the aggregates rushing from the fast charging power skip through the machine into the wheelbarrow.

In addition, you get the easy-to-move high-speed features that have long made Rex Tilter mixers the fastest pouring machines on jobs up to 40 yds. of concrete per day.

The new Tilter booklet tells all about this new ½-bag power loader machine and what it can do for you. Simply fill in and mail the tag. We'll mail the booklet to you.

CHAIN BELT COMPANY, 721 Park St., Milwaukee, Wis.

½-Bag on Any Standard Mix

Tilter

Send this Tag—

It brings you full and surprising information on how Rex Mixers can increase your per job profits. Simply check the Rex you are interested in and mail the Tag—there is no obligation.

- ☐ ½-bag Tilter
- ☐ Rex 5-S
- ☐ Rex 7-S
- ☐ Rex 27-E Paver
- ☐ Rex 10-S
- ☐ Rex 14-S
- ☐ Rex 23-S

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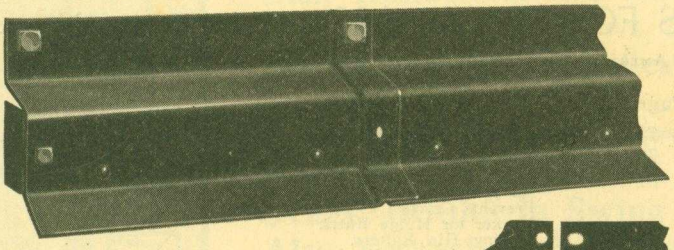
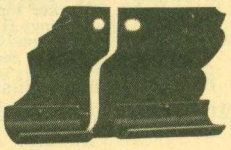
State 721

REX MIXERS

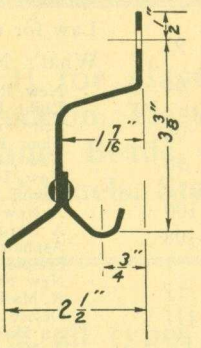
(Reg. U. S. Pat. Office)

NOW "Shedwel" Track is Added To Make the Line Complete





"Shedwel" Track, the latest addition to the Frantz Line of Guaranteed Builders' Hardware, was created to fill the demand for an economical weather-proof track for medium or light weight doors. Now—the Frantz Line of Tracks and their Hangers is complete and it is possible to select easily the correct and most economical type of equipment for any door, large or small, heavy or light.



End View of "Shedwel" Track Showing Dimensions

"Shedwel" Track is in reality a small size reproduction of "Glide," the Track that for years has given complete satisfaction on thousands of large doors throughout the country. This new track offers the same advantages of construction — the same positive weather protection and easy operation that have characterized "Glide" from the time the first installation was made. It has been made smaller and lighter than "Glide" to adapt it for use on medium or light weight doors. All types of "Runwel" Hangers operate easily and smoothly in "Shedwel" Track.

Write Dept. A-5 for a copy of the "How to Select the Correct Hanger and Track for any Door" Chart. It tells you how to quickly diagnose the needs of and prescribe the right equipment for any particular size or weight door at a minimum cost. It is sent FREE on request.

FRANTZ MANUFACTURING CO.
Sterling, Illinois

FRANTZ TRADE MARK RED LABEL GUARANTEED BUILDERS' HARDWARE

"Glide" Track No. 111

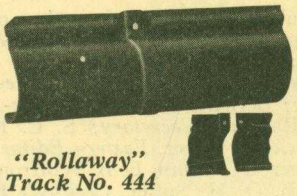
For large or heavy doors. Perfect weather protection. One-piece construction. No joint-brackets required. Has patented telescoping joint feature.

"Hi-Lo" Track No. 666

For large or heavy doors. Semi-weather protection. Made in one piece. No joint-brackets required. Has patented telescoping joint feature.

"Runwel" Track No. 555

For medium size and weight doors. Semi-weather protection. One-piece construction. No joint-brackets required. Has patented telescoping joint feature.



"Rollaway" Track No. 444

For small or light weight doors. Semi-weather protection. One-piece construction. No joint-brackets required. Has patented telescoping joint feature.

"No Hardware Is Genuine FRANTZ QUALITY *Without the Red Label"*

AMERICAN BUILDER

THE WORLD'S GREATEST BUILDING PAPER

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A New Power Hand Plane.
A Burglar-Proof Door.
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Simple Effective Screen Lock.
New Steel Framing System.
A Marble-Like Concrete Product.
Device for Perfect Saw Filing.
An Economical Metal Lath.
A New Electric Sander.
A Portable or Stationary Saw.
More Accurate Power Dial Scales.
Portable Power Saw for Heavy Timber.
Flexible Wire Rope Bolts.
Quick Acting Fire Station Doors.
New Dry Refrigeration.
Improved Steel Office Windows.
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Published on the first day of each month by American Carpenter and Builder Co.; Wm. A. Radford, *President, Treasurer and Editor-in-Chief;* Wm. A. Radford, Jr., *Vice-President;* E. L. Hatfield, *Vice-President and General Manager;* Bernard L. Johnson, *Vice-President and Editor;* Roland D. Radford, *Secretary;* S. C. Kellenberger, *Dealer Service;* Charles G. Peker, *Eastern Editor;* Juan Homs, *Export Editor;* Delbert W. Smith, E. B. Wolfrom, C. R. W. Edgecumbe, L. H. Reich, O. H. Sutter, Cecil W. Blashill, H. P. Sessions, J. J. Dubro, R. E. Clement, *Advertising Staff.*

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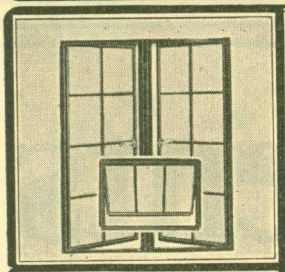
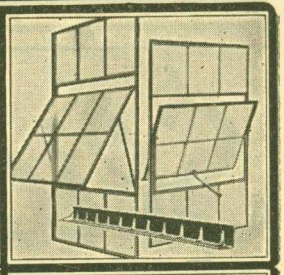
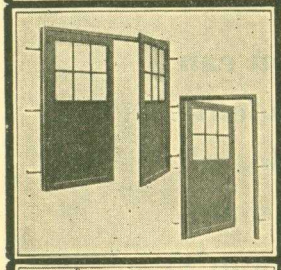
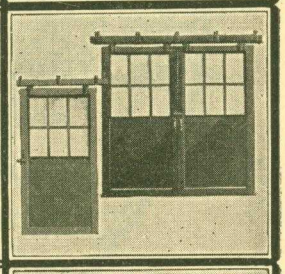


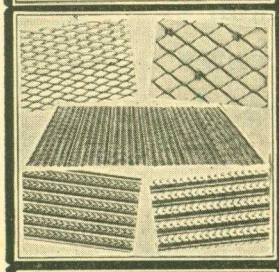
STEEL WINDOWS for Commercial Industrial, Residential and Institutional Buildings. Quality windows, conforming with the most exacting specifications at low cost.



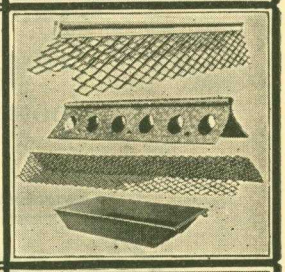


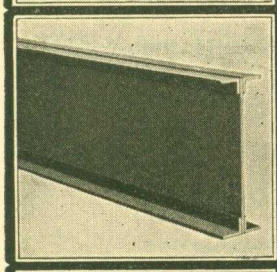
STEEL DOORS in Swing or Slide types. Also Vertical Folding, Vertical Lift, Vertical Lift-Swing, Airplane Hangar and Fire Department types, hand or power operated.



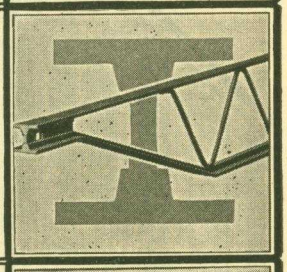


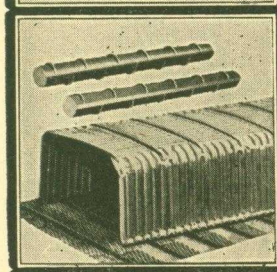
METAL LATH for plaster, concrete or stucco construction. Plastering accessories including Corner Beads, Cornerite, Strip-Ite, Furring Channels, Steel Mortar Boxes.



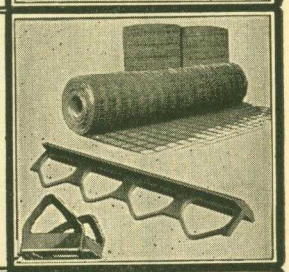


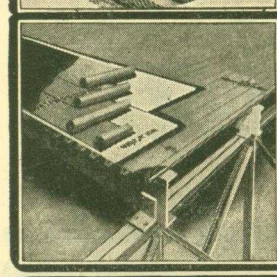
STEEL JOISTS, all types for economical, speedily erected fireproof floor construction. Come to the job ready for placing, eliminating all form-work and centering.



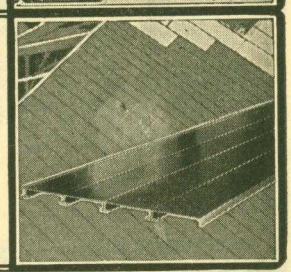


REINFORCING STEEL. Permanent or Removable Floretyles and Floreforms for all reinforced concrete floor systems. Bars, Inserts, Curb Bars, Welded Steel Fabric.





STEELDECK ROOFS. I-Plates construction, insulated to prevent heat loss and waterproofed with any standard roofing. Weighs not more than five pounds per square foot.



TRUSCON WAREHOUSES AND SALES OFFICES LOCATED IN ALL PRINCIPAL CITIES

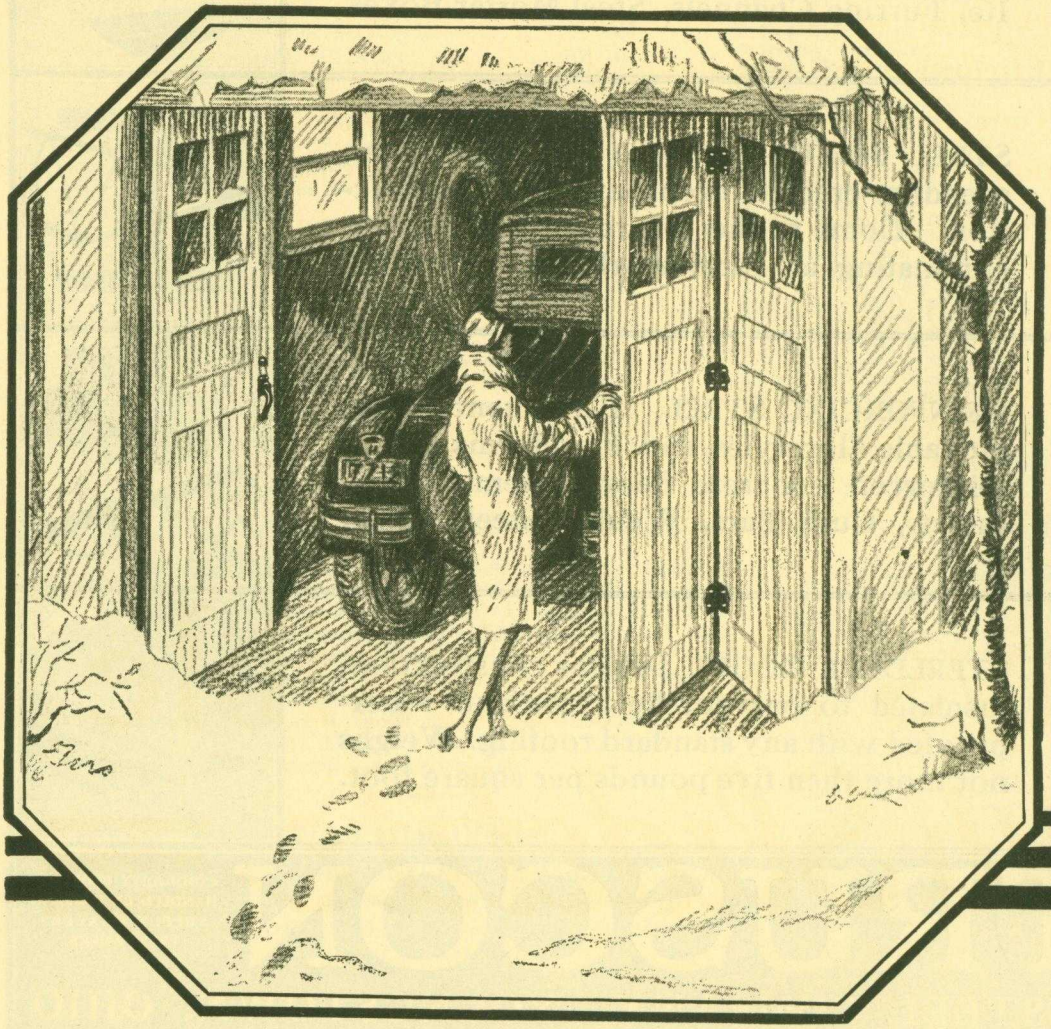
TRUSCON

COMMODITY PRODUCTS HANDLED BY BUILDING SUPPLY DEALERS EVERYWHERE

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

Slidetite Prevents

Just by glancing at the illustration shown below, you can see how easy and simple it is to open or shut *Slidetite* equipped garage doors. Instead of being outside, all *Slidetite* garage door hardware is *inside.* So *Slidetite* doors can't blow shut. They won't stick or sag. They won't rust. And because they do away with dangerous center posts, they give an unobstructed, full-width opening.



Car

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

this!

No matter what weather conditions may be, you can always get in and out of your garage as easily as you enter or leave your house—once you have installed *Slidetite.* In the most bitter days of winter, as in mid-summer, they respond instantly—even to the light touch of a child. In brief, *Slidetite* is the very last word in garage-door convenience and efficiency!

Richards-Wilcox Mfg. Co.

"A Hanger for any Door that Slides."

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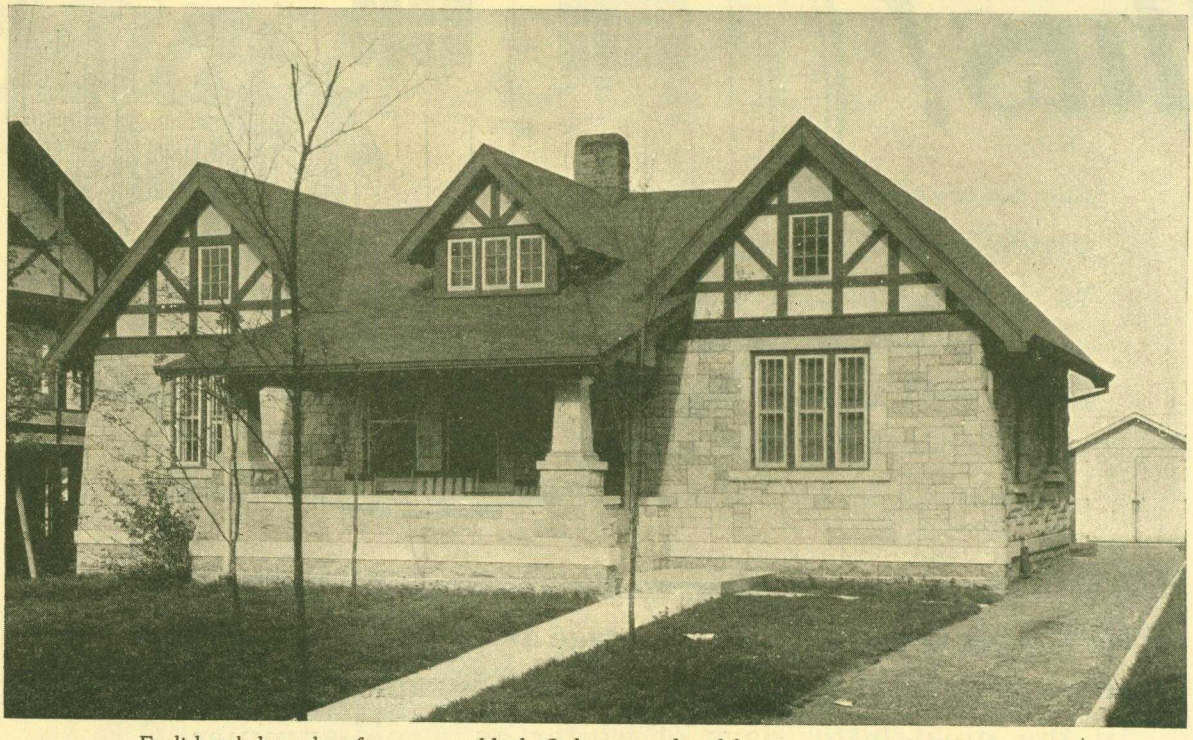
always Accessible with Slidetite

Stone Bungalows Quick to Sell

Learn the facts about the new profit opportunities which recent low-cost methods of preparing, handling and using Indiana Limestone open up to the contractor. Plan books free. See coupon



English style bungalow, five rooms and bath. Ordinary wood stud-frame construction faced with veneer of Indiana Limestone laid up as rock-face Random Ashlar.

A NEW profit opportunity has opened up in the building field. Many live contractors have already taken advantage of it.

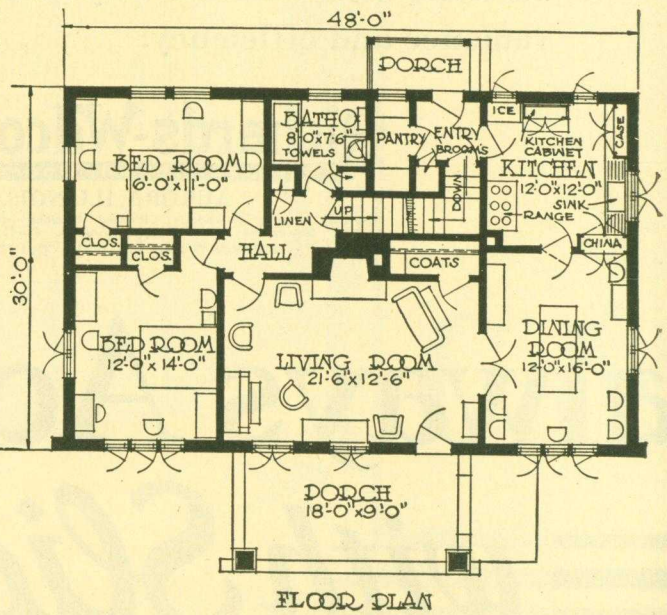
New methods of preparing and handling Indiana Limestone now make this beautiful, light-colored natural stone practical for all types of residence construction.

Large production and new ways of using the stone make its cost moderate. We ship all over the United States, competing with local stones and even with substitute materials.

Many moderate-cost houses and bungalows have already been built of Indiana Limestone. One is pictured here. We will send you Plan Books showing many others. Or we can send you folder showing bungalows only. Use the coupon.

Used as veneer

For ordinary residence construction, Indiana Limestone Random Ashlar is used as a veneer. The stone is prepared in sawed strips right at the quarry, sawed on four sides—face, back, top and bottom.



FLOOR PLAN

Floor plan of bungalow shown above. Our Bungalow Folder contains many other attractive plans.

INDIANA LIMESTONE COMPANY • GENERAL OFFICES: BEDFORD,

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

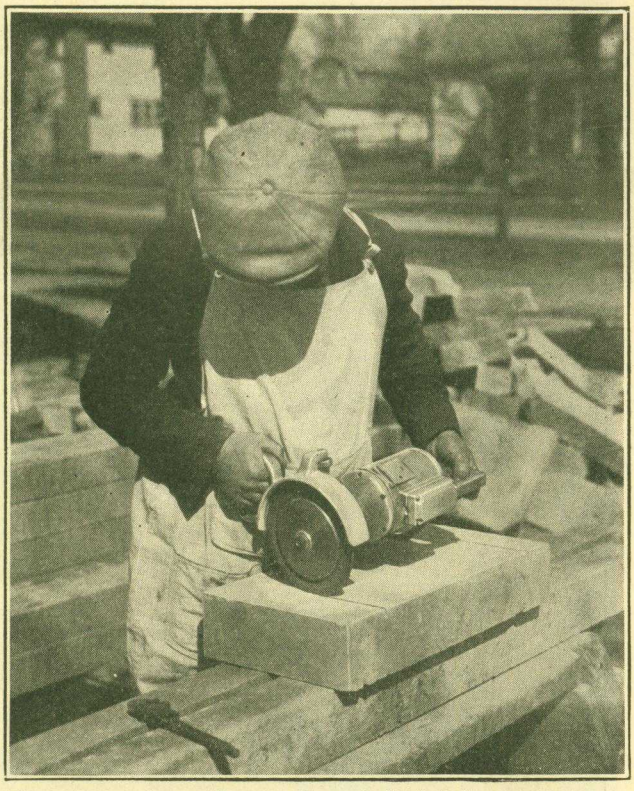
Indiana Limestone in this form is shipped from the quarries direct to the job. There it is broken, jointed and laid up. A stone mason or a bricklayer can do the work. Stone cutting is reduced to a minimum.

Jointing made easy

The stone is now jointed to proper length by a remarkably simple operation. An electric carborundum hand saw is used in place of the old mallet and chisel. This saw cuts a groove in the face of the stone. Then it is turned over and a tap with the mallet breaks it cleanly along the lines of the groove. By this method, one man can keep six stone-masons busy. Your stone-masons spend all their time on the wall laying up stone, instead of on the ground jointing it.

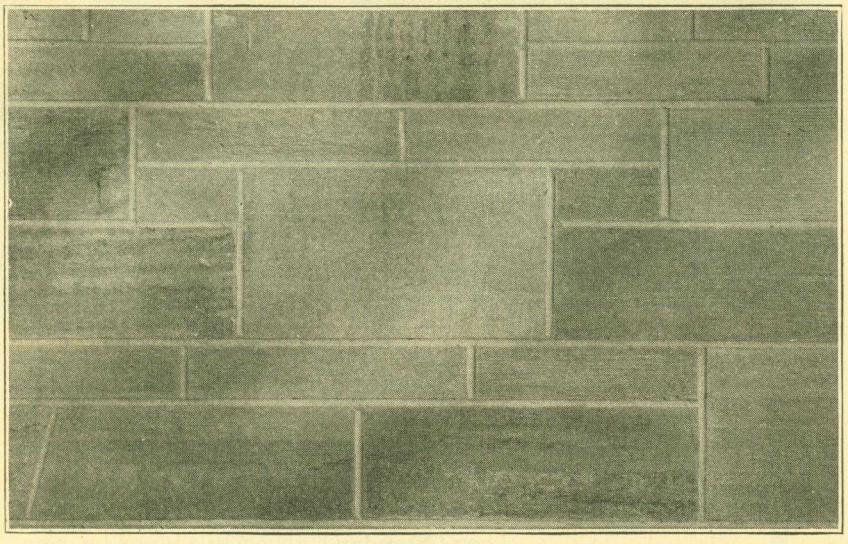
Indiana Limestone used in this way is applied as a veneer to stud-frame walls. Or it may be used as a structural facing over hollow tile or brick. It is secured to frame walls with galvanized metal ties, the same as a veneer of face brick work. This method is so simple that construction goes ahead with maximum speed.

Although the form of stone construction described here is comparatively new, builders are using it in all parts of the country with marked success. The vast resources of Indiana Limestone Company (we have 19 branch offices) make it possible to deliver this stone anywhere at reasonable cost.



Electric saw replaces old-time mallet and chisel for breaking Indiana Limestone. One man now keeps six stone masons busy!

We are interested in working with live contractors. There is a big demand today for "something different" in homes, especially something substantial. An Indiana Limestone house has a big eye appeal. And owing to its fine weathering properties, houses built of stone retain their good appearance indefinitely and have high resale value. We know that Indiana Limestone offers the biggest single profit opportunity in years to the builder who will act quick. It gives him a chance to get the jump on his competitors. Just one Indiana Limestone house will advertise you as no other type of house construction you've ever engaged in before has done.



Detail of Random Ashlar wall showing one of common schemes of laying up this class of Indiana Limestone.

Write for plan books

Let us send you plan books and full information on construction. Without obligating you in any way, we will post you thoroughly on this wonderful building stone.

Write to us today for all the facts about Indiana Limestone. For convenience, fill in your name and address on the coupon opposite, clip it out and mail it today. The booklets and further information will be sent you immediately.

Fill in, Clip and Mail

Box 757, Service Department
Indiana Limestone Company, Bedford, Indiana

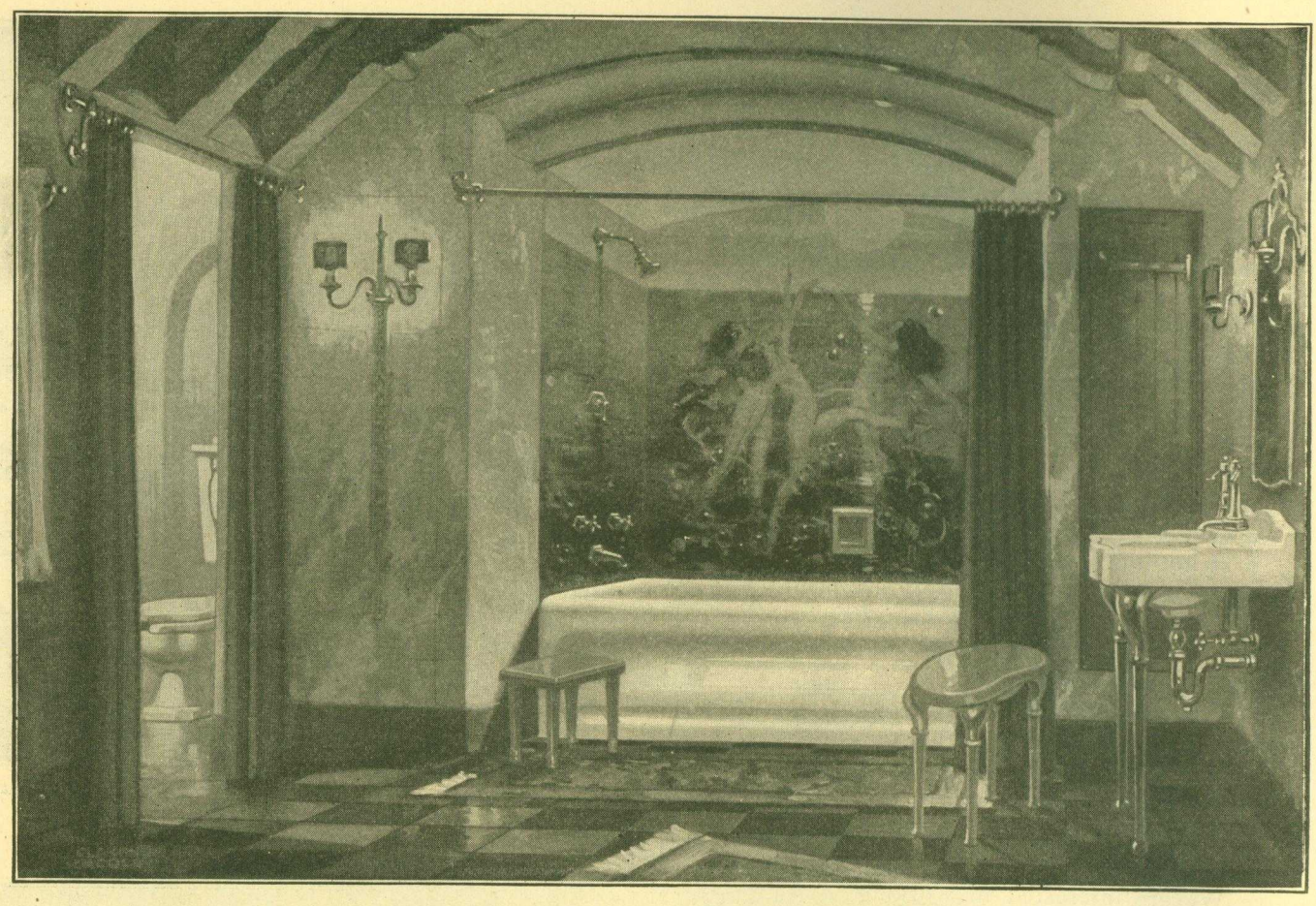
Send me full information on Indiana Limestone for Random Ashlar facing for residences.

Name .....

Address .....

City ..... *State* .....

INDIANA • EXECUTIVE OFFICES: TRIBUNE TOWER, CHICAGO



Easier to rent...Easier to sell...

Homes equipped with styled plumbing fixtures

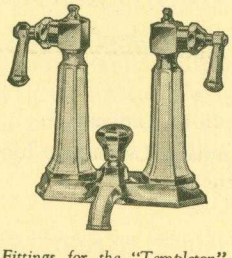
The great change has come in plumbing fixtures. That change has to do neither with material nor usefulness. It has to do with design. Therein lay the promise of finer plumbing fixtures and finer bathrooms.

For years plumbing fixtures have been more practical than beautiful. Styles were standardized. Individuality was priceless because unobtainable.

Then "Standard" designers visioned a way to greater distinction. That way was not to turn from today's ideal materials to the marble slab with cemented-in bowl, rococo and reminiscent of the brownstone fronts of the Eighties. It was to create finer forms, and then to improve manufacturing processes that these forms might be modeled and fired in genuine vitreous china.

So they originated designs, not forgetting that simplicity is an art from which beauty springs —even in Vitreous China Plumbing Fixtures. Plumbing fixtures, yes, but you will very likely think of them as fine bathroom furniture.

Today thousands of women the country over have seen the new "Standard" Plumbing Fixtures pictured in the national magazines. They want these beautiful new fixtures in the homes they rent or purchase. Wise is that builder who caters to this ever-growing demand by specifying "Standard" Plumbing Fixtures and Fittings.



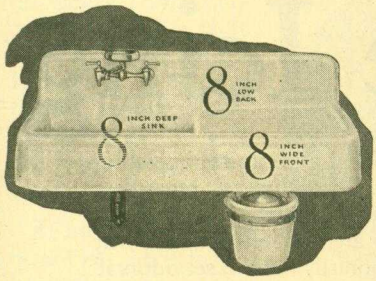
Fittings for the "Templeton" Lavatory are as original in design as the lavatory itself. Fine silverware is not wrought with greater care. Hexagonal in design and stately in appearance is this beautiful fitting. Finished in Chromard, with hand-hammered panels in natural color, antique or green gold

Standard Sanitary Mfg. Co.
PITTSBURGH

"Standard" PLUMBING FIXTURES

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

The "Standard" "Three 8's" Sink *Acid-Resisting*



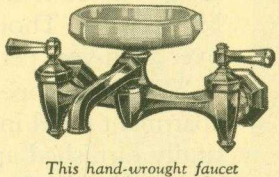
From breakfast hour until the dinner dishes are washed at night, the kitchen sink is on duty. Small wonder then that the kitchen sink is the first consideration when prospects inspect the kitchen. Because it is the most-used fixture in any home, prospective buyers and tenants demand that it be also the most efficient.

Here is a sink that keeps its bright beauty permanently. Dirt particles cannot become pitted in its hard, glass-smooth enamel. Minerals in the water, cleansers, even fruit and vegetable juices cannot roughen or discolor it. The enamel is Acid-Resisting Enamel.

Visit a "Standard" Showroom to see this modern sink—with 8-inch low back that fits under a deep, cheerful window and 8-inch deep sink compartment—deeper by two inches. It is made in several sizes and styles and in several beautiful colors as well as white.

Be sure to specify Acid-Resisting Enamel, as many other "Standard" models are also made in the regular enamel. The trademark "Standard" A-R, identifying Acid-Resisting Enamel, is impressed in every "Three 8's" Sink.

Before you build or remodel any home or apartment, be sure to write for the new book "Standard" Plumbing Fixtures for the Home. It contains many ideas and suggestions for the arrangement of kitchen, laundry, and bathroom. This book will be mailed on request.



This hand-wrought faucet of beautiful octagonal design with swinging-spout is finished in Chromard, a metal finish which has the sheen of platinum which will never tarnish or corrode

The directly attached garbage container of Genuine Vitreous China with removable aluminum receptacle can be pushed back under the sink on a folding bracket

Standard Sanitary Mfg. Co.
PITTSBURGH

"Standard" PLUMBING FIXTURES

The Surf
CHICAGO

MR. LEWIS S. THOMAS, *Manager "The Surf," one of Chicago's fine apartment hotels, tells of satisfaction with outside icing.*

A Ten-Year Test of Outside Icing

BE sure to include "outside icing" facilities in every apartment or home you plan or build. This thoughtful consideration of the future comfort and convenience of owners or tenants will add to your own reputation.

The importance and value of this "outside icing" feature is indicated by the experience of Mr. Lewis S. Thomas, Manager of "The Surf," over a ten-year period.

"The Surf," opened in 1918, was the first fine apartment hotel in Chicago built to offer beautifully furnished apartments with every housekeeping convenience, plus complete, fine hotel service. Mr. Thomas says:

"Every 'Surf' apartment has outside icing facilities, which our ten years' experience proves to be a very great advantage.

"'The Surf' has continuously enjoyed almost complete occupancy. Its first guest is still with us as are sixteen of the families who were its original tenants. All are thoroughly pleased with the convenient, efficient and economical refrigeration service made possible by our outside icing facilities. Milk, fresh fruits, vegetables and butter go right on the ice as delivered, regardless of whether or not the occupant of the apartment is there to receive them. They are not left to spoil, wilt or lose flavor by being temporarily held in servidors if the housewife chances to be absent.

"There is always plenty of ice to chip, for use in crisping salads and green vegetables, serving on butter to keep it firm, placing in drinking water, preparing frozen desserts, et cetera.

"A properly designed, well iced refrigerator delivers a perfect service. Ice is a product which cannot be improved upon. It answers every need, not only for the private home or apartment, but for the largest and finest hotel, in a thoroughly adequate way."

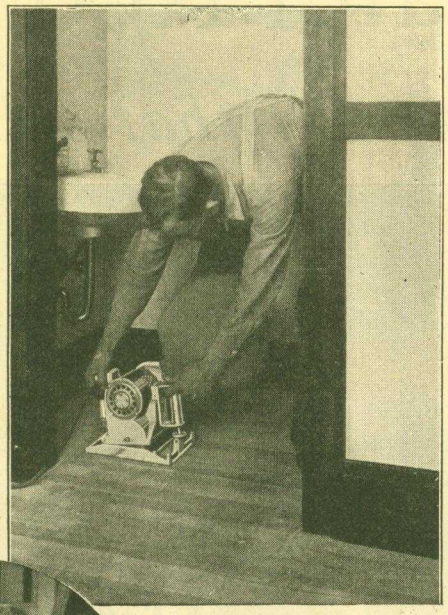
Outside icing, which permits the iceman to deliver ice without entering the house at all, can be arranged for, at very slight extra cost, when the building is under construction.

Some of the leading refrigerator manufacturers furnish blue prints which are very helpful to architects and builders in providing proper outside icing facilities.

NATIONAL ASSOCIATION OF ICE INDUSTRIES — Depend on ICE in all weather — 163 WEST WASHINGTON STREET, CHICAGO

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

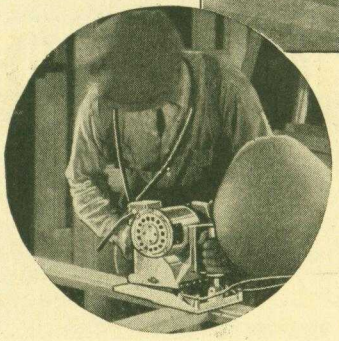
WHAT KIND OF SANDER



Amidst the many arguments presented for various sanding machines the buyer's mind is apt to be diverted from the main issue.

But the Sander-wise practical minded man is not side tracked. He knows the work he wants his Sander to do, therefore, his basis of buying a Sander is the work the Sander will do.

He measures the value of the Sander only in terms of the value of the work it will do for him. He wants quality work—he wants quantity work—and he wants low operating cost—for that means profit for him. He wants a Sander to give him real performance day in and day out—year after year.



If he gets all these qualities, he knows he will have the Sander which will give him the most feet of surfacing per dollar—and that's what he wants.

He looks around and investigates carefully. As a result, he purchases the CLARKE VACUUM PORTABLE SANDER.

First, *it is the only Sander with a definite, positive written guarantee of performance.* Assurance that the CLARKE will actually do the work he wants done.

Second, the light, powerful, fast-cutting CLARKE VACUUM PORTABLE SANDER can be carried with one hand and attached to any light socket. Positive evidence that it costs less to take to the job, and less to operate on the job.

Third, the CLARKE *principle* of light weight, speed and power—as contrasted with dead-weight and slow motion has demonstrated savings in all progressive industries.

Modern buildings, modern automobiles, modern tools, have demonstrated beyond all shadow of doubt, that the day of cumbersome, massive weight must give way for greater lightness, strength and power to stand up under all conditions and do the work.

Fourth, past performance and present day evidence on every hand proves that the CLARKE *"answers all calls"*—quantity work—quality work—close work—open work—floor work—bench work—**all**—at the *lowest cost* per foot.

Those who *face* and buy on facts, invest in the CLARKE. *Get the facts.* They *cost* you *nothing*, and will *save you much.*

Do not buy any sander, at any time, at any place, at any price, until you see what work the CLARKE can do for you.

—answers all calls

TRADE MARK

POWERFUL - FAST CUTTING
CLARKE
VACUUM PORTABLE SANDER
TRADE MARK

CLARKE SANDING MACHINE CO.

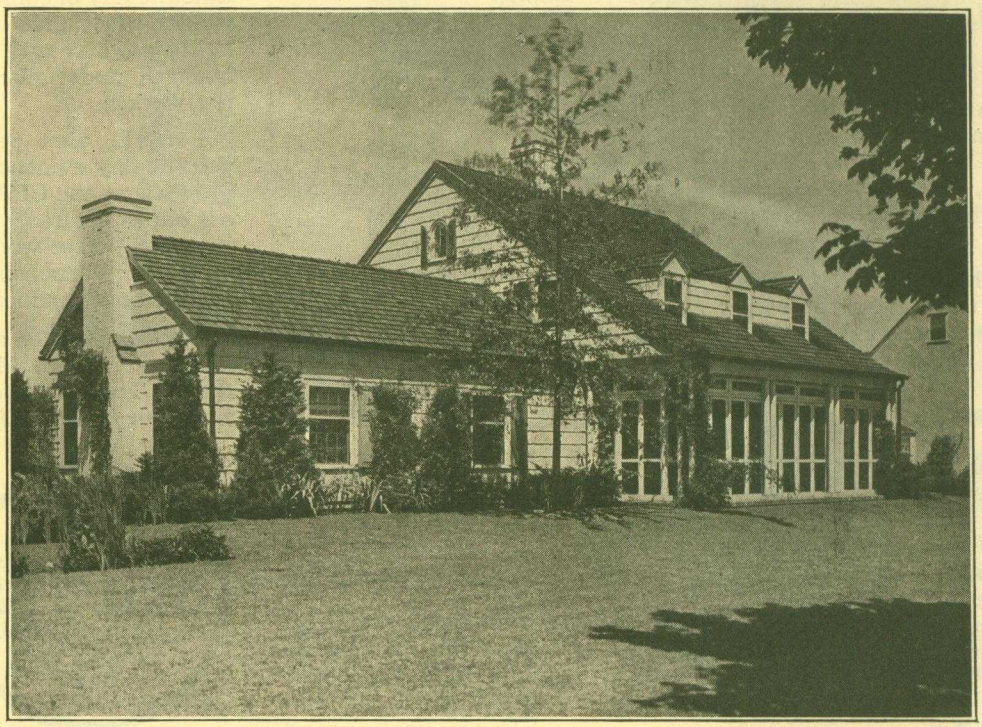
Dept. A-25 **3815 Cortland Street** **Chicago, Ill.**

For 11 years, Originators and Manufacturers of Portable Sanding Machines

CLARKE SANDING MACHINE CO.
Dept. A-25, 3815 Cortland St., Chicago, Ill.
Please send me the actual facts on the Clarke Vacuum Portable Sander. No obligation to me.
Name.....
Address.....
City.....
State.....

"and the exterior is of Tidewater Red Cypress"

—*a statement that sells houses*



"YOU should never have to spend a nickel for repairs on the lumber in this house."

That's what you can truthfully tell a prospect if you build with heart grade Tidewater Red Cypress.

Home-buyers are learning that this Wood Eternal is the most durable and most economical wood for their houses.

More and more each year, they are demanding it for siding, shingles, cornices, porches, doors, steps, screens, and all other exposed points where rain and rot might do their damage.

Cash in on this growing demand for durable materials, by using Tidewater Red Cypress in the houses you build on contract or for resale.

"Money Saved for Builders"—sent FREE

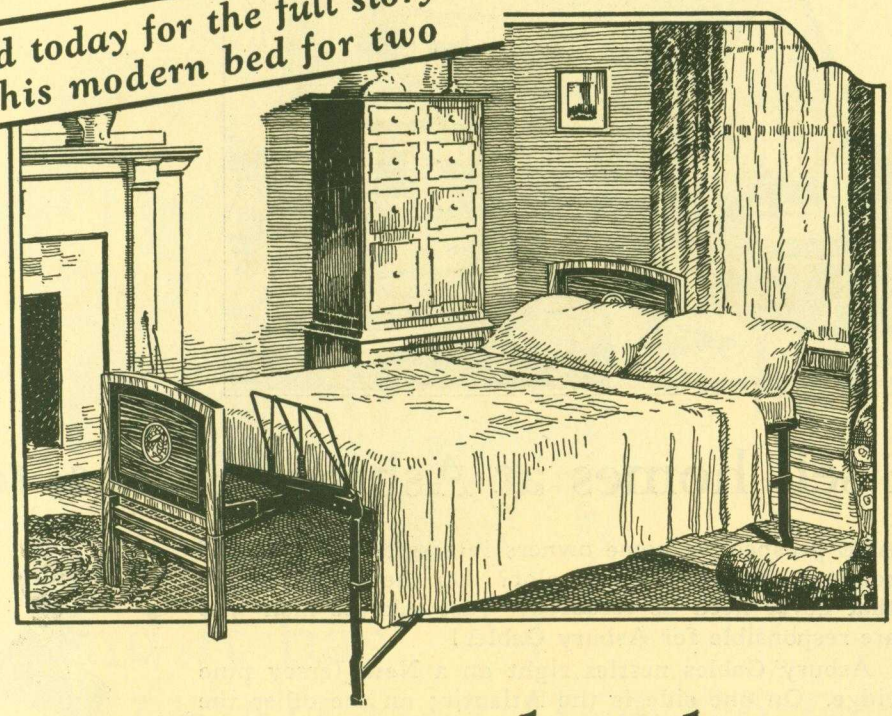
Drop a note in today's mail, asking for this booklet which tells how Tidewater Red Cypress is grown and milled . . . how it has endured for centuries in thousands of cases . . . how it makes a house more salable and boosts its resale value . . . and many other facts which you can use profitably. The booklet is yours for a postcard. Southern Cypress Manufacturers Association, Dept. AB5, Jacksonville, Florida.

Specify TIDEWATER RED CYPRESS

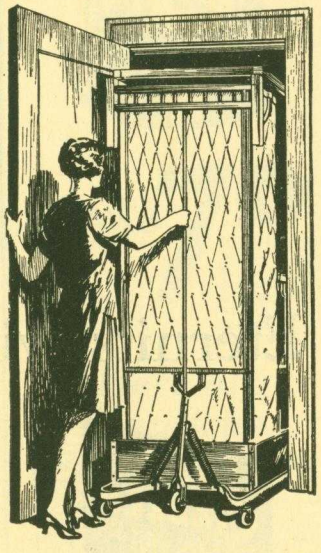
THE WOOD ETERNAL

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Send today for the full story of this modern bed for two



Out of sight in a 31" x 23" closet. Can be moved about anywhere with one hand.



It saves space, lumber and labor!

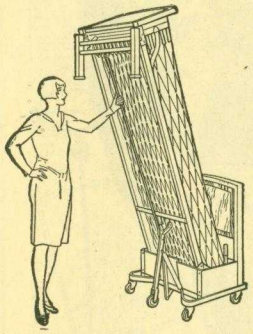
HERE is a bed for two so easy to move that it can be rolled about anywhere with one hand. And it is so compact that it can be kept in a small hall closet.

As a result of these exclusive advantages, the Seng Duofold Roller Bed assures you a marked saving in space, lumber and labor.

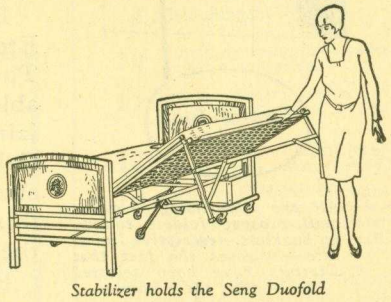
It does away with closet doors in living rooms and provides larger, more comfortable quarters—at no extra cost. In the construction of big apartment buildings, it sometimes adds an entire apartment to each floor.

Think of how all this will cut down your construction costs! Think of how much more profitably you can build! Think of how much easier it will be to sell and rent!

Send today for the full story of the Seng Duofold Roller Bed. It will be mailed to you promptly on receipt of attached coupon.



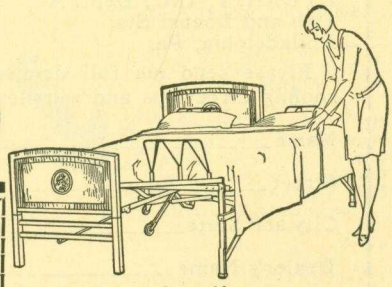
Simple, ingenious springs make raising and lowering effortless.



Stabilizer holds the Seng Duofold steady in all positions—while opening, while closing and while in use.

THE SENG COMPANY
1452 Dayton Street · Chicago
Manufacturers and Patentees

SENG *Duofold* ROLLER BED



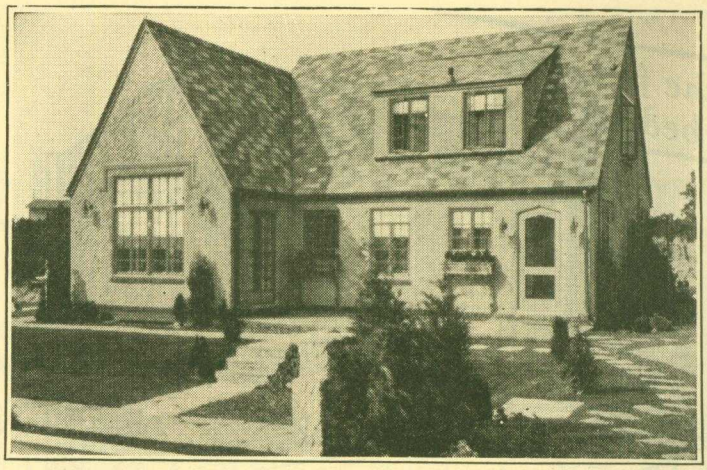
Resilient, sagless cable springs accommodate a thick, comfortable mattress and other bedding.

THE SENG COMPANY, 1452 Dayton Street, Chicago, Illinois.
Gentlemen:
Please send full description of Seng Duofold Roller Bed and detailed facts about the opportunity it offers me. This request places me under no obligation.

Name.....

Street .....

City..... State.....



Eternits will sell homes at Asbury Gables, *too!*

All the advertising — direct mail, prospect folders, follow-up booklets, descriptive literature — stresses the fact that Eternits have been selected for roofing these homes.

ARE prospective home owners interested in fire-proof roofing? Do they want color? Do they want homes that never need be reroofed? Just ask the men who are responsible for Asbury Gables!

Asbury Gables nestles right on a New Jersey pine ridge. On one side is the Atlantic; on the other the municipal golf course. It is a beautiful setting for these charming homes.

Illustrated here is the *Newark Sunday Call* Model Home—a sample house. It embodies all the beauty, permanence and safety which the builders of this development are anxious to have in each home.

Naturally, Eternit Asbestos Shingles were chosen for the roof. Here was color that time and sea air could not fade — for Eternits, because of an exclusive new process, are colorfast. Here was variety—five unusually handsome colors and three, instead of two, methods of application. Here was fire safety—absolute protection.

Eternit Heatherblends—a combination of the five Eternit colors — were used on the Model House. The added beauty of the blended colors brings favorable comment from everyone who sees the home. Realizing the effective sales story they had there, the Asbury Gables Corporation, in all its folders and prospectuses, stressed the fact that Eternits were used. Certainly this style will help to influence the sale of homes and the choice of roofing for those who build in this resort.

Eternits have become the most popular asbestos shingles on the market. Lay them on new buildings—lay them over old wooden or asphalt shingles; they'll give 100% satisfaction. Give Eternits a trial on your next job. For further information, mail the coupon. Eternit, Inc., Philadelphia, Boston, New Orleans, Jacksonville, St. Louis. Factory at St. Louis.

ETERNIT, INC., Dept. A
15th and Locust Sts.
Philadelphia, Pa.

Please send me full details, roofing directions and samples.

Name _____

Street _____

City and State _____

Dealer's Name _____

Eternit
Reg. U. S. Pat. Off.

ASBESTOS SHINGLES

ABSOLUTELY COLORFAST

William F. B. Koelle, Architect: *"In planning the homes of Asbury Gables, we took full advantage of the home buyer's demand for color. I know of no asbestos roofing shingle that compares with the striking beauty of Eternit Heatherblends. The shadow lines that the horizontal method permits are particularly pleasing."*

A. Theodore Abbott, President of Development: *"Asbury Gables is a permanent development. The roofs on our homes must last for a lifetime—they must be fully protected from all fire hazards. Considering our roofing problem from either of these angles, our best possible choice was Eternits."*

C. N. Chamberlain, Roofer: *"Eternits are easier to lay than any roofing material I've worked with. They stand the roughest handling — they nail without splitting. We're proud of the job we have done here with Eternits."*

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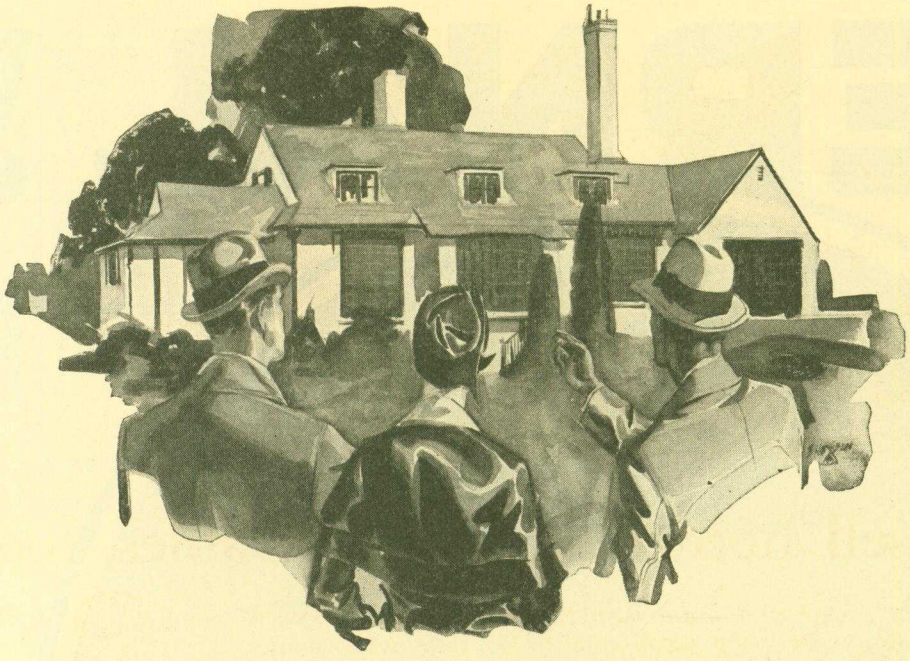


only $70

Cash, f. o. b. factory, for 210 gallon per hour system complete with 60 cycle electric a. c. or d.c. motor.

". . and it has *RUNNING WATER*"

RUNNING WATER! What a selling point for the contractor or builder. The prospective buyer thinks of a home in terms of comfort. Naturally a building with running water is preferred.

And it costs so little to include a water system in the building. A small expenditure for a Fairbanks-Morse Home Water System increases the value of the property and adds infinitely to salability.

Think of the F-M Water System as a means to beat competition. Prepare yourself for the building season by using the coupon to get full information.

Easy Purchase Plan

Only $20 down with easy monthly payments if you desire. Any Fairbanks-Morse dealer will be glad to explain these convenient terms. Just use the coupon to secure full description and complete information.

Have you a WATER PUMPING PROBLEM? Our engineers will advise you free of charge.

Here are unmatched F-M features

1. Completely enclosed. All parts fully protected.
2. Compact—19" in diameter, 21" high.
3. Big capacity—210 gallons per hour.
4. Entirely automatic—starts itself—stops itself.
5. Easy to install—only two pipe connections.
6. Completely equipped, including electric motor, automatic switch, pump and tank.
7. Quickly accessible—simply lift hood. The removal of one stud bolt exposes valves.
8. Quiet and exceptionally smooth running.
9. Self-oiling.
10. Supplies steady, full stream without pulsation.
11. Fresh water connection with every pump at no extra charge.
12. Can be used with large storage tank when desired.
13. Genuine F-M unit throughout. Fully guaranteed—the biggest home water system value ever offered.

Also a 420 gallon per hour system with features listed above at $100. Both sizes for use where source of water is not more than 22 feet below the system.

Manufacturers: FAIRBANKS, MORSE & CO., Chicago, U. S. A.

Branches and Service Stations Covering Every State in the Union

FAIRBANKS-MORSE
Home Water Systems

Fairbanks-Morse Products (F M) *"Every Line a Leader"*

MAIL COUPON TODAY

FAIRBANKS, MORSE & CO.
Dept. H-5
900 S. Wabash Ave., Chicago

Send your FREE Home Water Service Book and Special Circular giving full details about the New F-M Home Electric Water System.

Name.....

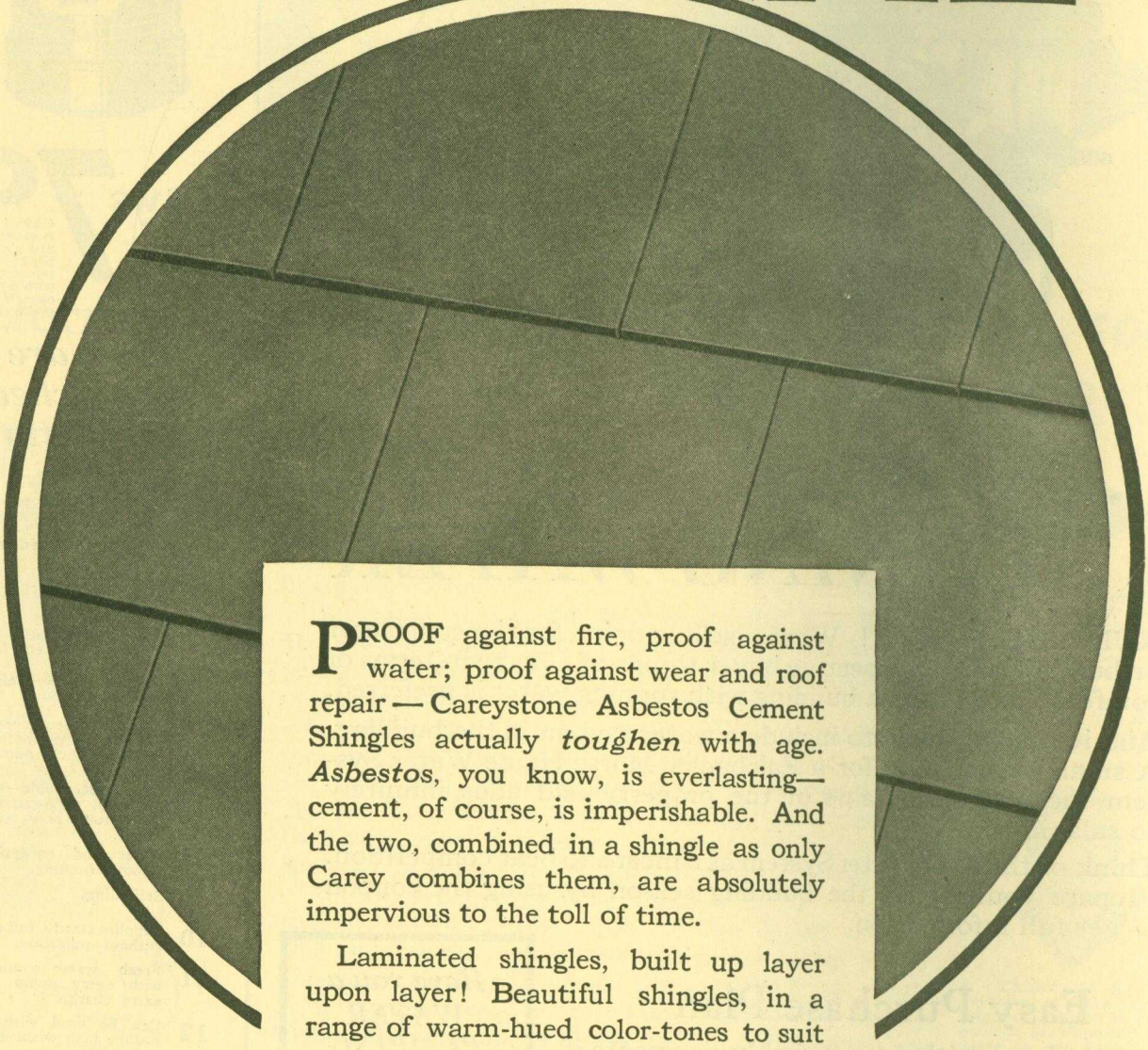
Address.....R. F. D.....

County.....State.....

My source of water supply is:

☐ Shallow Well ☐ Deep Well ☐ Spring
☐ Lake ☐ Stream ☐ Cistern

ETERNAL!



PROOF against fire, proof against water; proof against wear and roof repair — Careystone Asbestos Cement Shingles actually *toughen* with age. *Asbestos*, you know, is everlasting—cement, of course, is imperishable. And the two, combined in a shingle as only Carey combines them, are absolutely impervious to the toll of time.

Laminated shingles, built up layer upon layer! Beautiful shingles, in a range of warm-hued color-tones to suit every taste. Artistic shingles, in either the American type or the six-sided French style. Careystone Asbestos Cement Shingles sell themselves . . . *and they sell houses, too.* Write for your samples at once.

THE PHILIP CAREY COMPANY
Lockland, Cincinnati, Ohio

Careystone
ASBESTOS AND CEMENT SHINGLES

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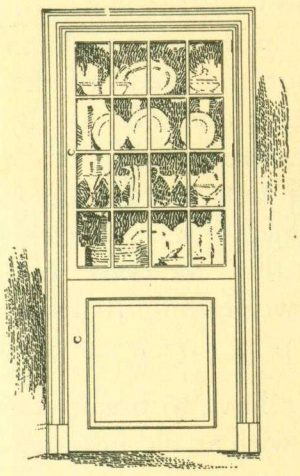
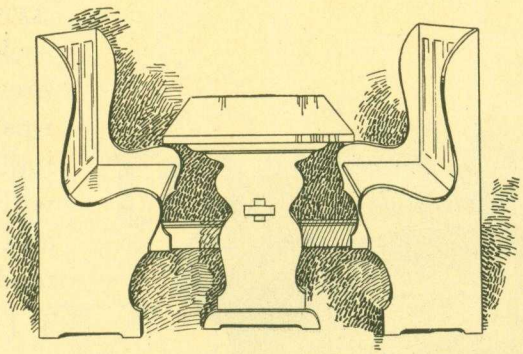


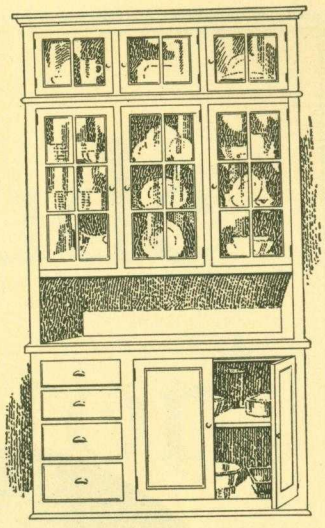
Corner Cupboard C-6504

A design of unusual simplicity and beauty and so inexpensive it can be used in even the most modest bungalow or low-price apartment. It retails including trim, in oak or birch from $55.90 to $62.89.



Dining Alcove Set C-6000

With the shrinkage in size or entire disappearance of the dining room in the modern compact house and apartment, the dining alcove is gaining in popularity, and here is a set of furniture for it that has unusually good lines. It can be had for from $39.31 to $44.22.



Kitchen Cupboard C-6700

A well equipped kitchen is the greatest aid to better sales and quicker rentals that any builder can use. Curtis makes excellent cupboards in various sizes and at various prices. This one costs from $86.60 to $97.43.

They make empty rooms appear half-furnished

That is why houses and apartments with Curtis Cabinetwork sell for more or rent better . . . and such rooms are always a permanent advertisement for the builder who designed them

MOST new houses or apartments, when completed, are turned over to their first owner or occupant when *empty*. Their floors are denuded of furniture, their walls are without pictures and their windows without curtains.

Do the houses and apartments that you build look homelike and attractive *before* they are occupied? Do they make the customer want the place so badly that he signs up without argument or price cutting?

You can make your buildings sell and rent better if you build them with something more than walls and floors and ceilings. Curtis Cabinetwork will help you do it.

Open bookshelves flanking the fireplace or running under and around windows . . . quaint corner cupboards in the dining room, charming dining alcove sets with high-back seats like old Colonial settles . . . spacious kitchen cupboards handsomely proportioned and beautifully molded—these are things that make women want to own or rent a house or apartment.

And these items of Curtis Cabinetwork cost so little! The price includes nothing extra for their designs—their *beauty*—which are the work of one of the best architectural offices in the country.

Everywhere builders, realtors and contractors are learning the sales and rental value of Curtis Cabinetwork. And anywhere east of the Rockies these beautiful designs can be obtained from any Curtis Dealer.

The leading dealer in your town is probably a Curtis Dealer, but if he is not, write for full particulars to

The Curtis Companies Service Bureau
855 Curtis Building, Clinton, Iowa

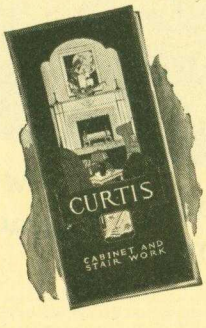
Representing

Curtis Bros. & Co., Clinton, Iowa; Curtis & Yale Co., Wausau, Wisconsin; Curtis Sash & Door Co., Sioux City, Iowa; Curtis, Towle & Paine Co., Lincoln, Nebraska; Curtis, Towle & Paine Co., Topeka, Kansas; Curtis Door & Sash Co., Chicago, Illinois; Curtis Detroit Co., Detroit, Michigan; Curtis-Yale-Holland Co., Minneapolis, Minnesota.

Curtis Companies, Inc., Clinton, Iowa

Curtis Woodwork Display and Sales Office, Room 201, 9 E. 41st Street, New York City.

1866 CURTIS WOODWORK



CURTIS COMPANIES SERVICE BUREAU
855 Curtis Building, Clinton, Iowa

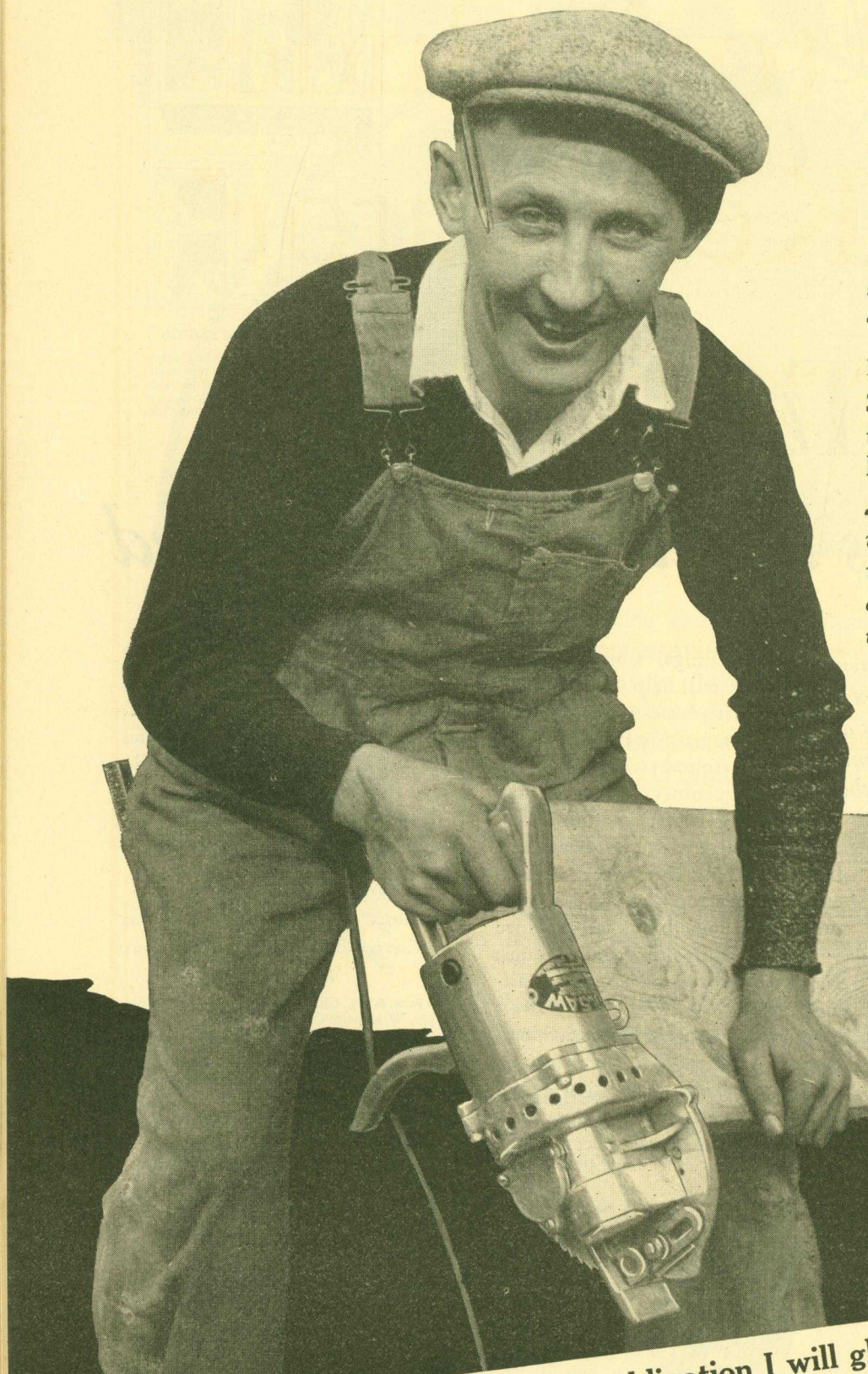
Please send me a FREE copy of your new book with complete information about Curtis Cabinetwork.

Name.....

Address.....

City..... *State*.....

That's the Way to Saw!



There's no trick about it. Just plu
SKILSAW in the nearest electric ligh
socket, put the blade to the wood
press trigger and ZIP — ***SKILSA***
rips or crosscuts thru 2" dresse
lumber as fast as you can mark
with a pencil. The motor is ½ H.P
and yet this ***SKILSAW*** (the ne
model J) weighs only 10 lbs.

THE PRICE IS $60

You don't have to break your bac
any more with an old fashioned han
saw.

Those days are gone forever. We'
prove it.

Send us the coupon. We want yo
to try ***SKILSAW*** on your own wor
FREE.

SKILSAW *is made in four sizes. Ther*
is one to do all of your sawing. I
will do it anywhere, because yo
can carry it about as easy as an
tool you've got.

SKILSAW INC.
3822 RAVENSWOOD AVE.
CHICAGO

Without obligation I will gladly watch a 5 minute demonstration

Name _____

Address _____

Adv. No. 27. © 1928 Skilsaw Inc., Chicago, Ill.

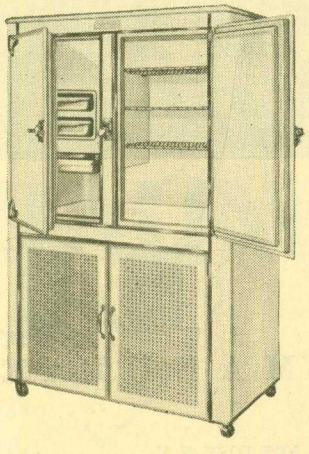
Plan to include Kelvinator★

BECAUSE Kelvinator will help you or your client sell the home you build . . . because your Kelvinator-equipped apartment houses will always be filled . . . because Kelvinator's twelve-year record of economy and reliability justifies your faith, plan to include Kelvinator.

The first Kelvinator ever built . . . the first domestic electric refrigerator ever offered the public . . . is still maintaining the same low temperatures for which it was set up.

. . . and every Kelvinator since has gone out with that same, inherent *trustworthiness* . . . built into it.

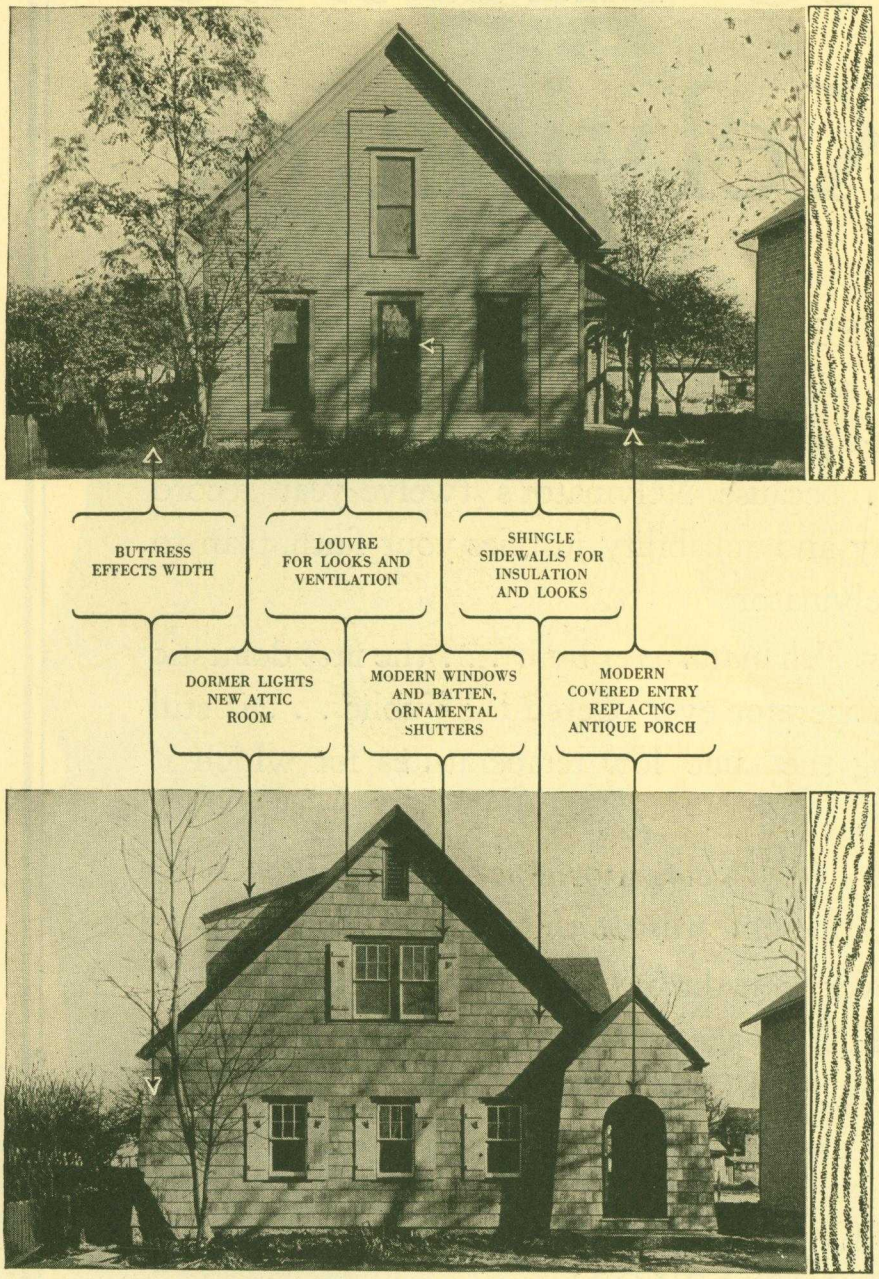
Wherever you build . . . plan to include Kelvinator. There is a size and style for every job. Write us for our Builder's Book of Kelvinator installations.

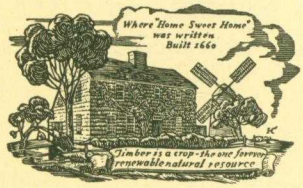


KELVINATOR
CORPORATION
Detroit

★ *Approved by the Investigating Committees of Architects and Engineers.*

ARE YOU MISSING the *Rich Profits* of Remodeling?





INVARIABLY the home owner sooner or later asks, "Can you help me remodel my house?"... Are *you* getting all the profitable remodeling business that you should?

The use of lumber for the reconstruction of old-fashioned or run-down houses offers the builder a most lucrative opportunity. Think of the number of homes which you know are out of date. Their owners would be interested to learn how simply and inexpensively an old house can be transformed with a few alterations.

No man wants to live in an antiquated house—it hurts his standing in the community. Show him the accompanying illustrations and prove to him that by remodeling he not only enhances the value of his property, but also betters his own standing.

Watch this series of advertisements on the use of lumber for remodeling—it will contain many helpful and practical suggestions which will enable you to increase your profits.

In all your remodeling or building operations use only properly seasoned lumber; manufactured to American Lumber Standards, endorsed by the United States Departments of Agriculture and Commerce. Made only by America's best mills. Your retailer has it or can get it for you.

NATIONAL

LUMBER

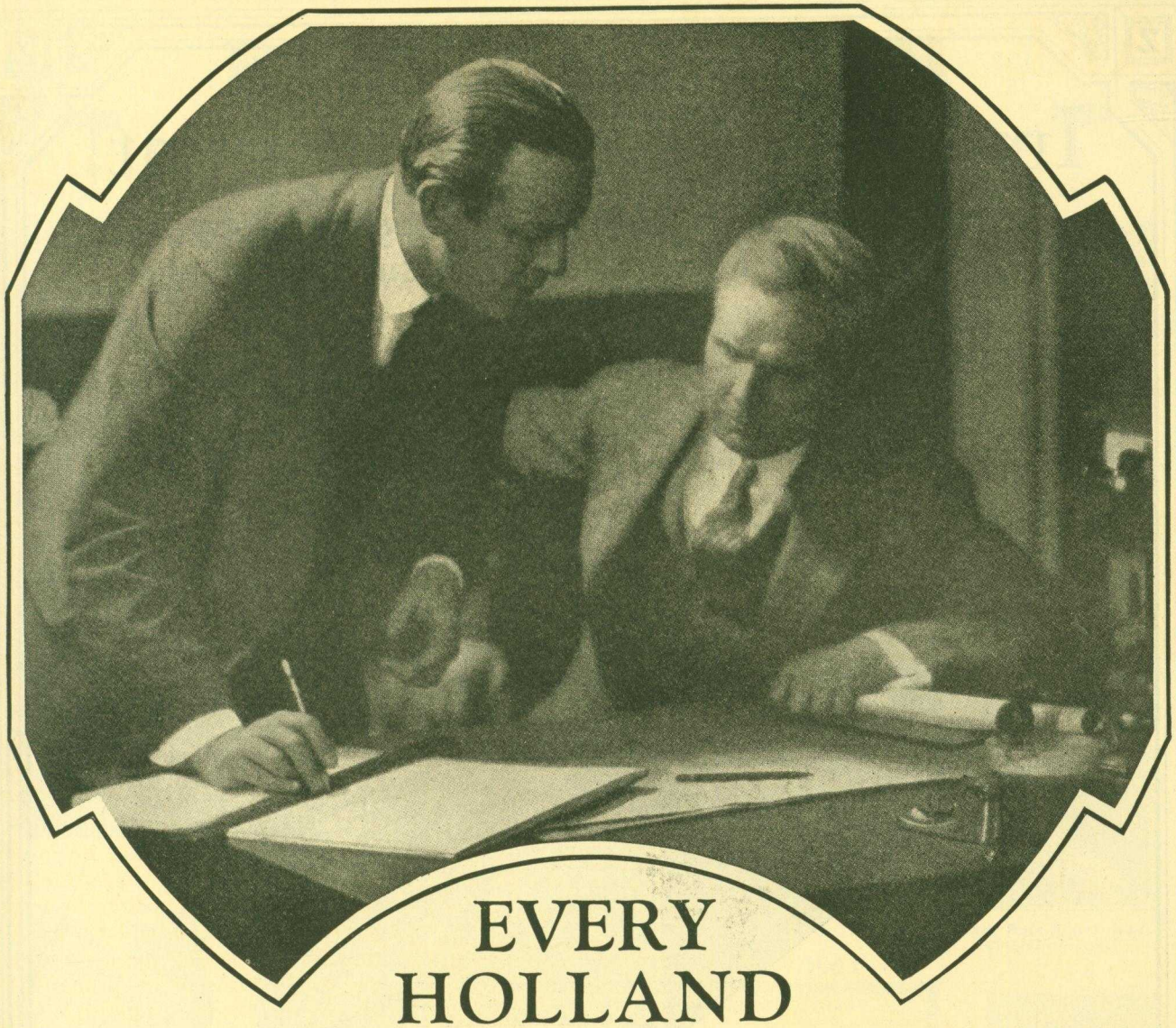
MANUFACTURERS ASSOCIATION

WASHINGTON, D. C.

NEW YORK, N. Y. *CHICAGO, ILL.* *SAN FRANCISCO, CAL.* *MINNEAPOLIS, MINN.* *INDIANAPOLIS, IND.* *KANSAS CITY, MO.* *DALLAS, TEX.* *PORTLAND, ORE.*

AMERICAN STANDARD LUMBER FROM AMERICA'S BEST MILLS

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



EVERY HOLLAND

IS SPECIALLY BUILT FOR THE HOME IT HEATS

Holland Vaporaire Heating installations are made under direct factory supervision in accordance with triple-checked plans that meet the individual requirements of each home. Heat losses, B.T.U. requirements and all other elements affecting heating efficiency are accurately computed. All guesswork is eliminated. Responsibility is undivided. You deal with a single organization. Satisfaction guaranteed by written bond backed by our entire resources.

The Holland is known from coast to coast. It has more than a million warm friends. Continuous national advertising and the personal calls of thousands of salesmen make it favorably known to home buyers everywhere. Well-known builders install the Holland because it helps sell their homes. You will find it a powerful selling point. Let us give you the facts. They are well worth your attention. Use the attached coupon or telephone our nearest branch.

HOLLAND *Vaporaire* HEATING

MAKES WARM FRIENDS

Holland Furnace Co. Holland, Michigan

Without obligation on my part please ☐ Send me your Free Booklet "How To Heat Your Home" ☐ Have a Holland Man Call.

*Name*_____ (AB-1)

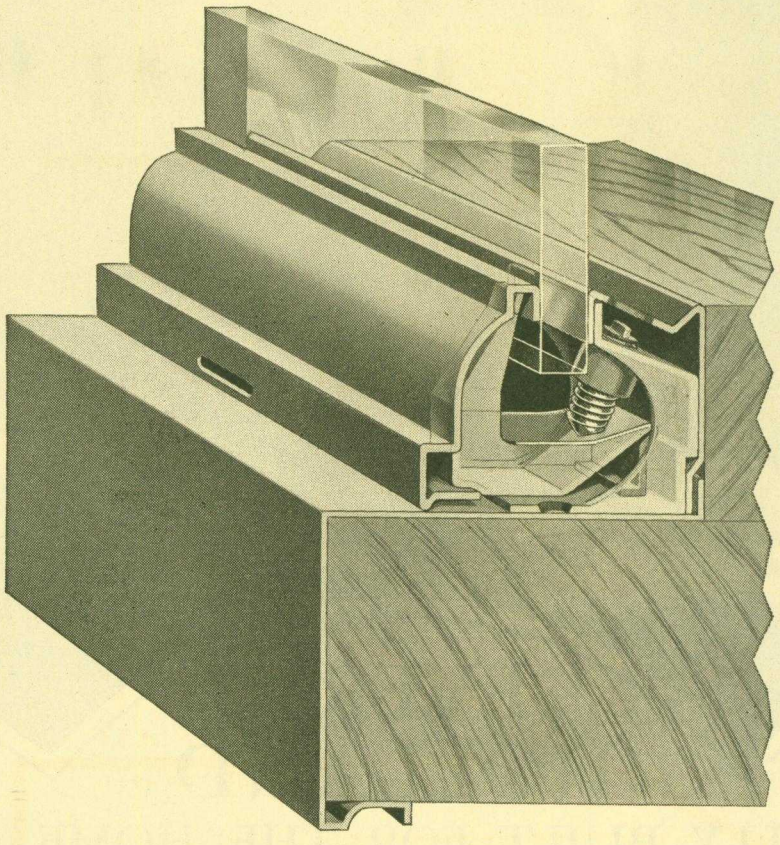
*Address*_____

*City*_____ *State*_____

A.I.A.-26 B-1

Important Announcement!

Now a Key-Set Sash that Costs No More Than the Direct Screw Pressure Type



DUE to the economies of greatly increased production aided by improved design, we are now manufacturing a Key-Set Sash retailing at the same price as the various direct screw pressure types. This has been our goal for many years.

There are many advantages in this type of store front construction:

1.—It is the only sash embodying the safety feature of indirect screw pressure, and the use of self adjusting setting blocks upon which to set the glass (patented).

2.—No screws whatever appear in the face moulding to mar its beauty.

3.—Rolled from heavy gauge copper or bronze.

4.—It can be used as a self-supporting sash independent of the wood backing strip commonly required on direct screw pressure types.

Further details will be furnished without charge upon request.

Zouri Drawn Metals Company

And Associated Companies:

International Distribution

INTERNATIONAL STORE FRONT COMPANY
STANDARD STORE FRONT CONSTRUCTION CO.
MODERN BRONZE STORE FRONT COMPANY
ZOURI COMPANY OF CALIFORNIA
ZOURI DRAWN METALS CO. OF NEW YORK, INC.

Names on Request

Factory and General Offices: Chicago Heights, Illinois

ZOURI KEY-SET EXCLUSIVE *Safety* FEATURES STORE FRONTS

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

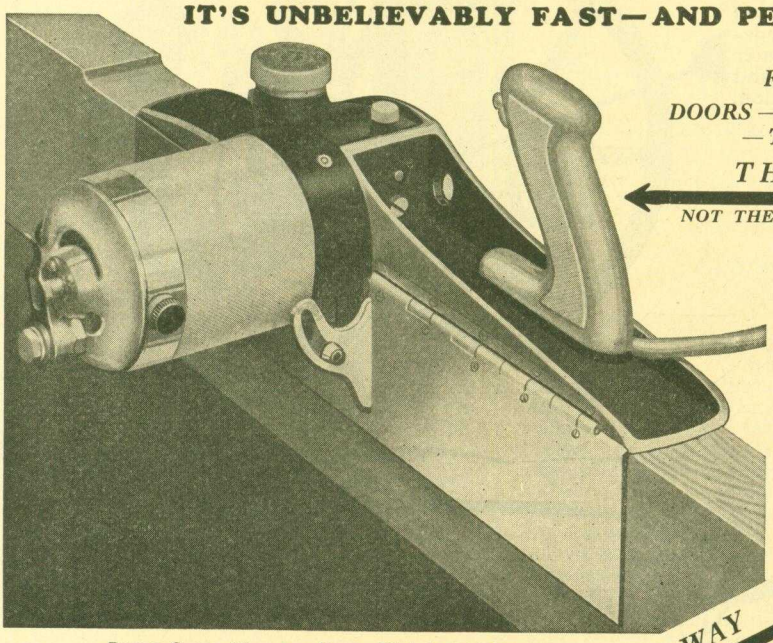
EVERY BUILDER

AGREES THAT ALL DOORS

SHOULD BE HUNG

FITTED AND MORTISED *THE CARTER WAY* After Seeing It Done

IT'S UNBELIEVABLY FAST—AND PERFECT

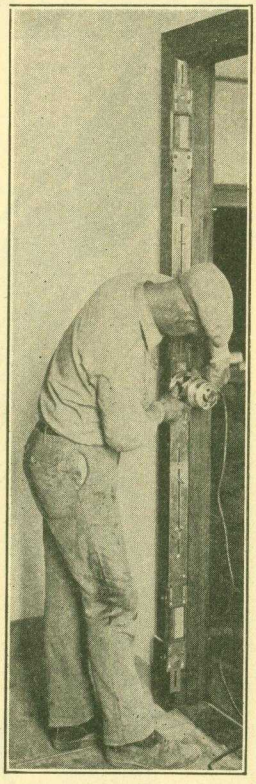


Power Super-Plane on Door—Weighs 9½ Lbs.

FIT YOUR
DOORS — WINDOWS —
— TRANSOMS, ETC.
THIS WAY

NOT THE OLD HAND PLANE

CARTER-IZE
NOW
IT'S
DOOR
INSURANCE



Hinge Butt Router and Templet on Jamb

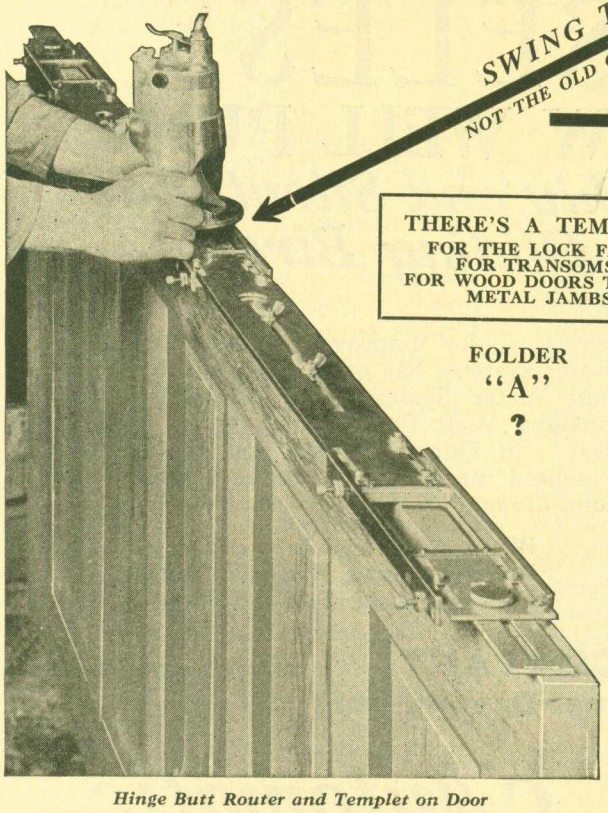
SWING THIS WAY

NOT THE OLD CHISEL AND HAMMER

Same Templet for Both Door and Jamb

MORTISE THIS WAY

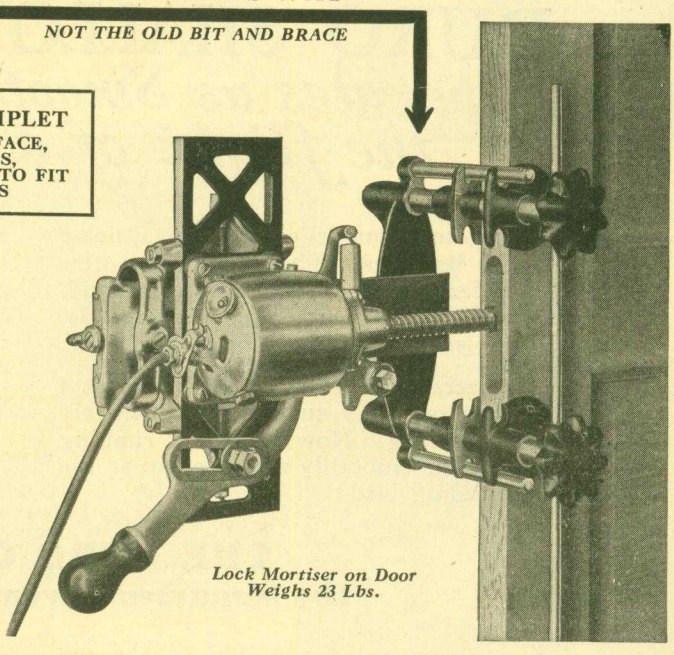
NOT THE OLD BIT AND BRACE



Hinge Butt Router and Templet on Door

THERE'S A TEMPLET
FOR THE LOCK FACE,
FOR TRANSOMS,
FOR WOOD DOORS TO FIT METAL JAMBS

FOLDER
"A"
?

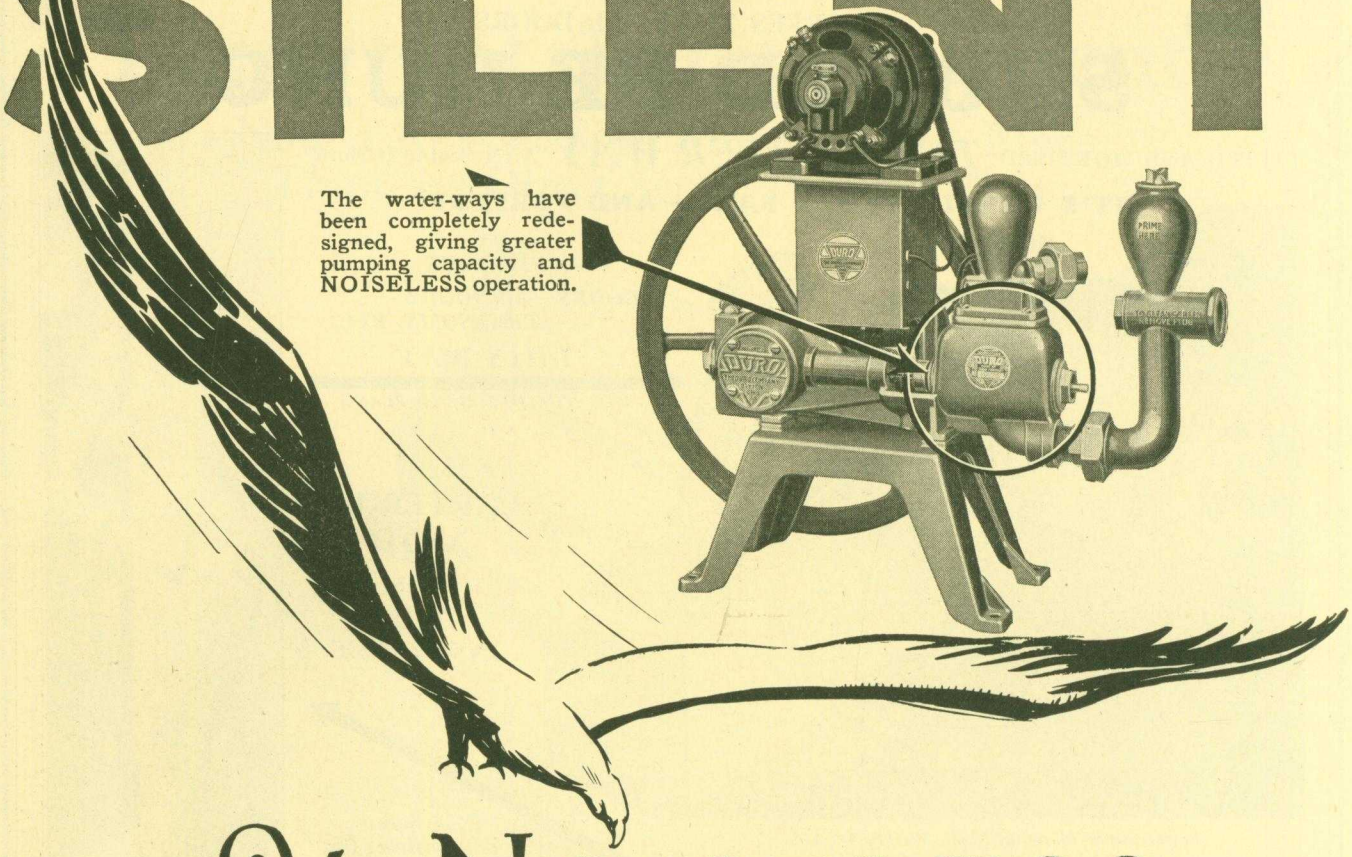


Lock Mortiser on Door Weighs 23 Lbs.

EACH UNIT KEEPS ITS OWN CUTTERS SHARP—
EACH UNIT IS INDEPENDENT OF THE OTHER

Manufactured solely by **THE R. L. CARTER CO., Inc.,** 1280 Chestnut St., Phoenix, New York
(ORIGINATORS OF THE DOOR SET)

SILENT



The NOISELESS DURO SHALLOW WELL PUMP

Operates as Smoothly and Silently as the flight of a Gliding Bird!

Neither you nor your clients want a noisy pump in the basement of that charming new home. Builders and home owners are demanding not mere running water service, but dependable, noiseless running water service.

Duro Engineers have developed a pump that does its work on extra suction lifts—entirely without hammering. Now the quiet running Duro operates as smoothly and silently as the flight of a gliding bird.

Every major improvement in pumps and water systems has come first in Duro Pumps and Water Systems. In the NOISELESS Shallow Well Pump, Duro again leads the way. In Duro only can you get exclusive, patented mechanical advantages which mean long life and carefree service.

Write for booklets on Duro Water Systems, Water Softeners, Filters and Septic Tanks.

THE DURO COMPANY
105 Monument Avenue, Dayton, Ohio

DURO *Automatic* WATER SYSTEMS

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Advertisements like the one on the right are making

Sargent Hardware

a profitable investment for builders . . .

NATION-WIDE, to millions of persons all over the country, Sargent consumer advertising is carrying the story of the beautiful designs in the Sargent line, and the permanent satisfaction given by Sargent Hardware of solid brass and solid bronze. *House & Garden*, *House Beautiful*, *Country Life*, *Garden and Home Builder*, and *The Literary Digest* are taking this story *to people who are interested in building or in buying homes.*

This means that, more and more, persons who come to you for homes can be impressed and influenced in the matter of their choice by the use of Sargent Hardware.

Hardware helps sell homes. Just as copper downspouts and brass piping help convince prospects that the invisible details, those important parts of the home that are hidden away where they remain unnoticed until they cause trouble, have been faithfully and honestly made of the best materials . . . just so, the hardware you use sways their opinion. If the hardware is cheap, shabby and shoddy, home buyers suspect that everything in the home is the same. If the hardware is Sargent Hardware of solid brass and solid bronze, they feel that the rest of the house is staunch, and solid, and true. It makes it easier for you to close a sale.

Sargent Hardware of time-defying, rust-resisting solid brass and solid bronze helps you establish a reputation for building homes that give permanent satisfaction. And it saves you the expense of making repairs just after a house has been sold.

There are Sargent representatives in all cities. The one near you will be glad to help you make selections, and furnish you with estimates. Write for our book of designs, "Hardware for Utility and Ornamentation." Sargent & Co., Hardware Manufacturers, 51 Water St., New Haven, Conn.

SARGENT
LOCKS AND HARDWARE

Brass Hardware in *Correct Designs*

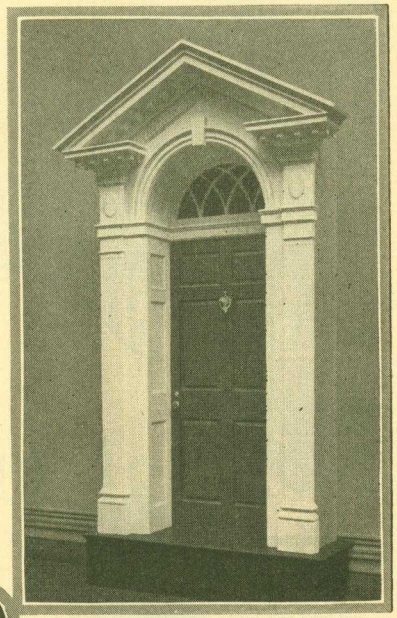
for CLASSICAL AMERICAN DOORWAYS

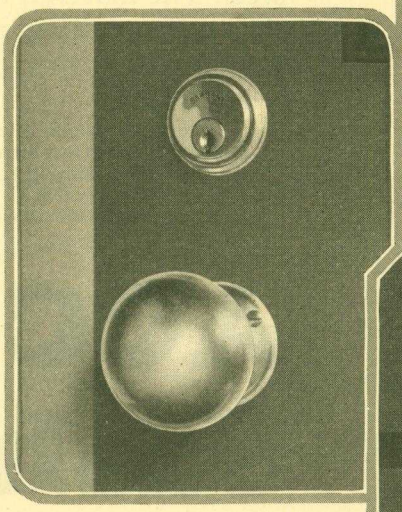
Many Sargent pieces are similar to the antique hardware on doorways exhibited in the Metropolitan

IN THE early years of the Republic, some master carpenter built this doorway in Ridgeville, Maryland, working out the classical tradition in wood. The sensitiveness of its detail, its dainty knocker and small round knob have won comment in the Metropolitan.

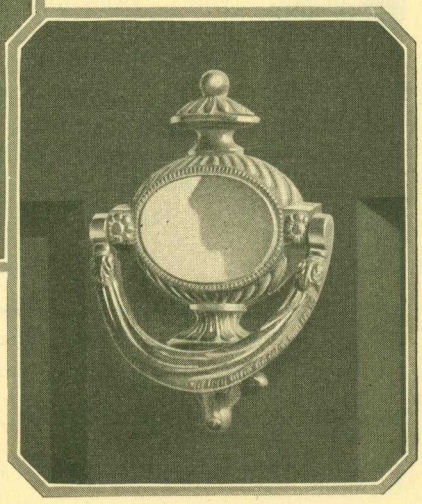
The patient, careful spirit of craftsmanship, which guided the builders of the doorways exhibited at The Metropolitan Museum, guides the makers of Sargent Hardware in present-day New England. It has placed at the disposal of modern home builders solid brass and solid bronze hardware in authentic Colonial designs—interior hardware, as well as heavy knockers and robust entrance handles. Every piece of it, lock set or hinge, is hardware well made. Quiet and smooth of operation. Prepared to serve faithfully for generations.

A post-card will bring the book of designs, "Hardware for Utility and Ornamentation." Select Sargent pieces with your architect. Sargent & Company, 51 Water Street, New Haven, Connecticut.

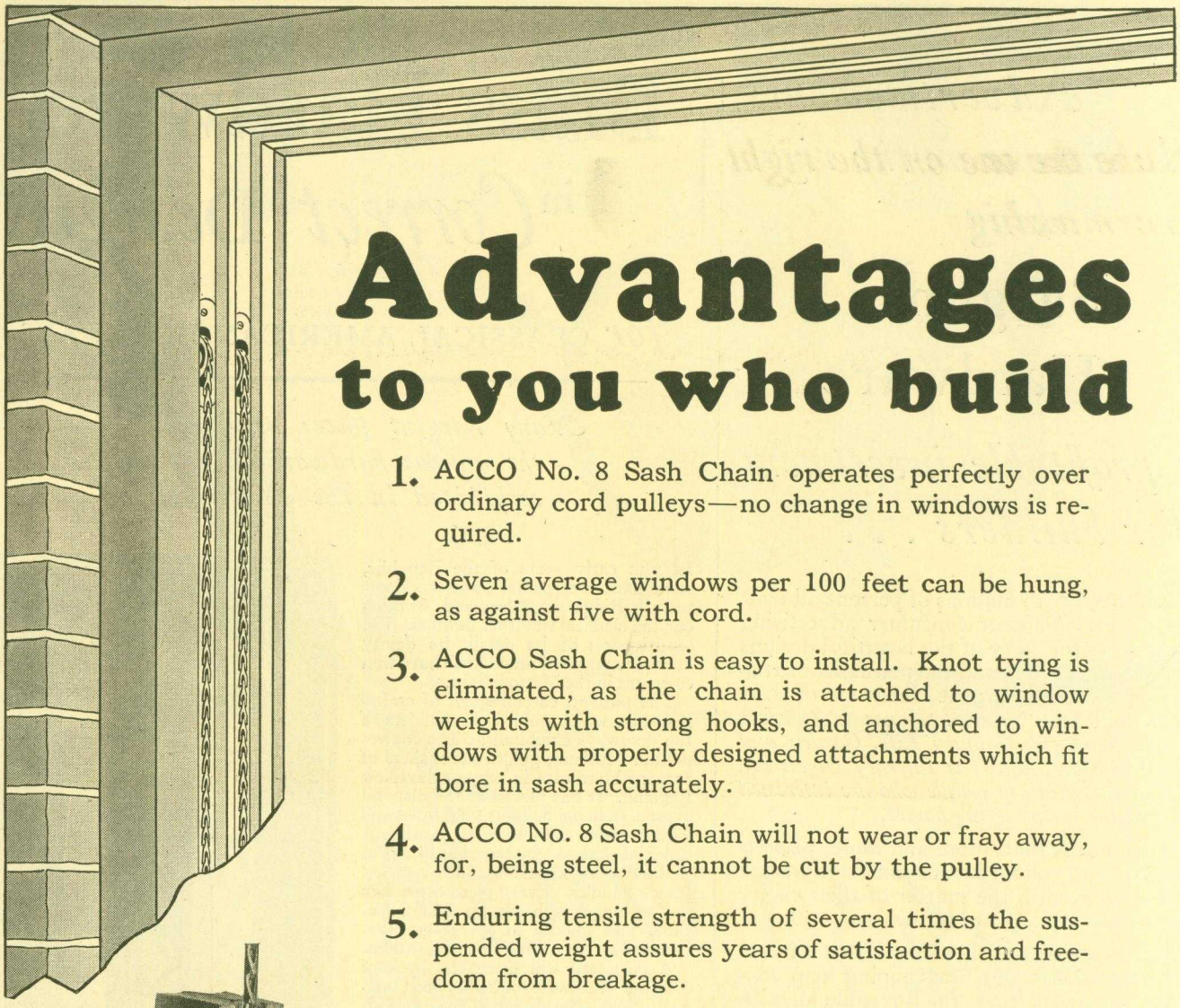




The detail of brass hardware on this doorway exhibited by The Metropolitan Museum is of interest to all who build in the American tradition. The decorative knocker carries out the effect of the design. The simple brass knob shows the influence of classical restraint.

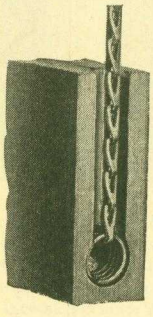


This brass knob is true to the Early American style. It connects with the Sargent Cylinder Lock. This one is proper here, or a variety of handles with thumb latches, all to be had in Sargent Hardware. Ask for knob No. 1845 (or one of our plain patterns) and cylinder. The "Newfane" knocker, No. 9 in the book of Sargent designs, has the decorative touch correct for your Colonial door.

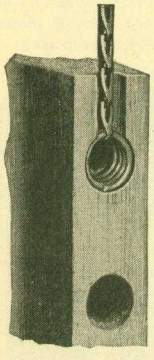


Advantages
to you who build

1. ACCO No. 8 Sash Chain operates perfectly over ordinary cord pulleys—no change in windows is required.
2. Seven average windows per 100 feet can be hung, as against five with cord.
3. ACCO Sash Chain is easy to install. Knot tying is eliminated, as the chain is attached to window weights with strong hooks, and anchored to windows with properly designed attachments which fit bore in sash accurately.
4. ACCO No. 8 Sash Chain will not wear or fray away, for, being steel, it cannot be cut by the pulley.
5. Enduring tensile strength of several times the suspended weight assures years of satisfaction and freedom from breakage.
6. All ACCO Sash Chain is made of copper-bearing steel. The material itself is rust resistant—and further to protect against corrosion, it is coppered or galvanized.



For one-hole sash, a coil spring provides a strong grip that cannot tear loose. Simply slip coil into end link, give it a turn and insert in sash with thumb.



For two-hole sash, the coil spring is inserted in the upper hole, slipping the coil into end link and inserting in same manner as with single-hole sash.

Fill out the coupon below and we will send you a sample length, with attachments, for test. If your lumber yard or hardware specialty dealer does not handle ACCO Sash Chain, give us his name and we will see that you have a convenient source of supply.

ACCO
A PRODUCT OF THE AMERICAN CHAIN COMPANY, Inc.
in business for Your Safety

ACCO No. 8 Sash Chain

AMERICAN CHAIN COMPANY, Inc., Dept. A-5, Bridgeport, Connecticut

Gentlemen: Please send me a sample length of ACCO No. 8 Sash Chain for testing.

Name.....

Address.....

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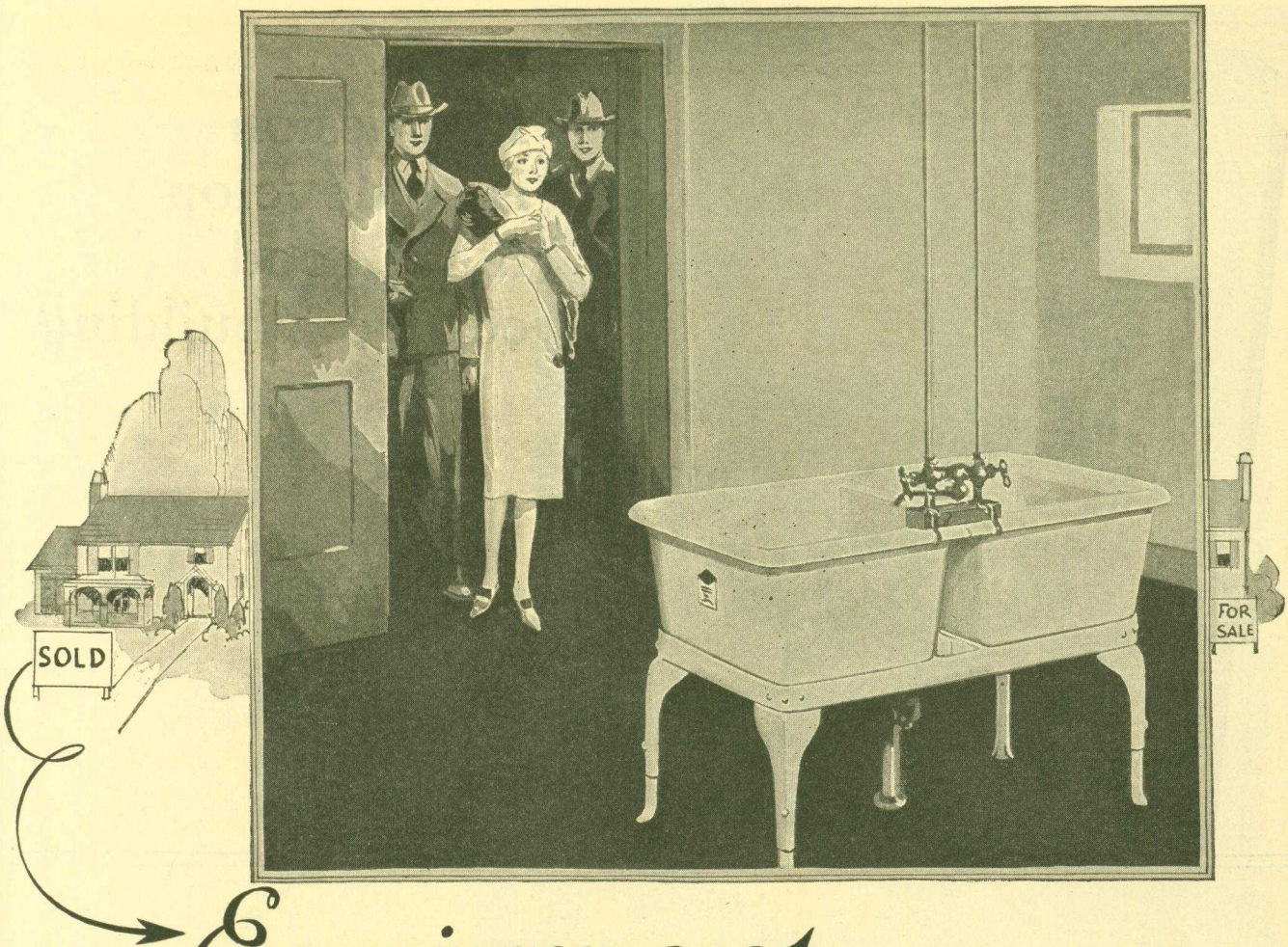


Equipment— the factor that DECIDES a Sale

SPECIFY Porceliron Laundry Trays on your Spring developments, Mr. Contractor, for this one sound, practical reason—

They'll help you sell your houses.

Remember the women who look at your houses don't see construction "jobs"—they see *their homes* in which they, perhaps, will live and work for the rest of their days.

The Porceliron Laundry Tray will help you make *that* picture a pleasant one.

Imagine it! A unit like two big, shiny, snow-white bowls set out there in the center of a laundry floor if desired so that a woman can walk all around it—adjustable to the height of any individual; Clean and Sanitary as any bath tub; Durable; Attractive—

Why the woman doesn't live who wouldn't thrill to such a laundry.

What's more, the Porceliron Double Compartment Unit, while it adds tremendously to the sales value of a house, costs very little more than the cheapest laundry trays you can buy.

Write—now—for descriptive literature and sheet of efficient laundry layouts suggested by prominent authorities on domestic economy.

INGRAM-RICHARDSON MANUFACTURING COMPANY

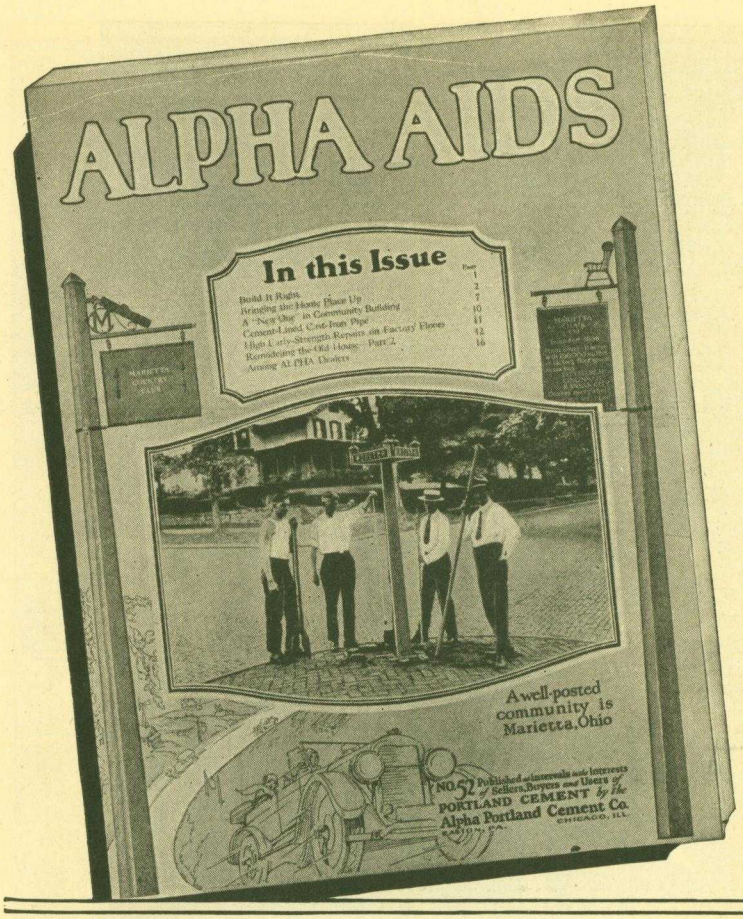
Tested and Approved 1291 Good Housekeeping Institute Good Housekeeping Magazine

411 THIRTY-SECOND STREET, BEAVER FALLS, PA.

Porceliron Factories at

BEAVER FALLS, PA. FRANKFORT, IND. BAYONNE, N. J.

SEE OUR CATALOGUE IN SWEETS



Its mission is to develop more good concrete building

Covers a mailing list of 66,000

HERE we reproduce the cover of a recent copy of our practical and pictorial magazine ALPHA AIDS, issued regularly for many years in behalf of "Sellers, Buyers and Users" of ALPHA CEMENT.

Not only does this publication deal extensively with concrete improvements around home, yard, farm and business place, but it gives interesting accounts of road development and outstanding undertakings, such as dams, tunnels, bridges, distinctive homes, municipal improvements, etc.

If you are not receiving ALPHA AIDS regularly, let us know.

Alpha Portland Cement Company

EASTON, PA. CHICAGO, ILL.

New York Philadelphia Boston Baltimore Pittsburgh
St. Louis Battle Creek, Mich. Ironton, Ohio

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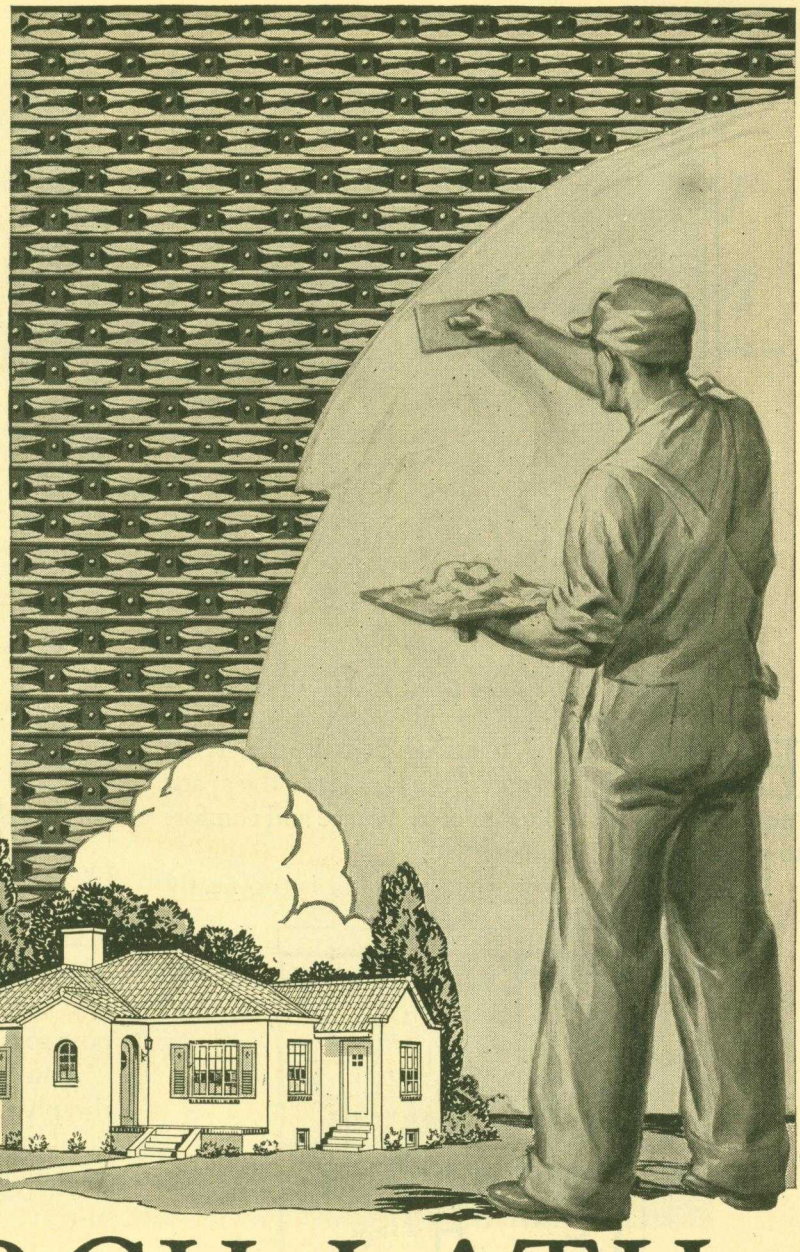
a barrier to fire— not merely a plastered wall



Wheeling
CORRUGATING COMPANY

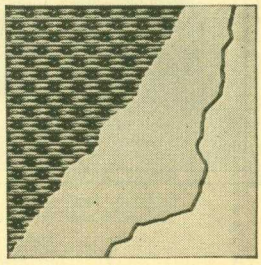
ARCH LATH

WHEELING National Advertising is drawing public attention to fire-safe homes. Arch Lath helps to fortify the home against fire by making walls and ceilings a veritable armor of steel—an almost impregnable barrier against the destructive hand of fire!

You can profit by building fire-safe homes. Arch Lath costs no more to use than inflammable material. The reason for this is that Arch Lath saves plaster, saves time and labor. The scientifically designed arches permit only the correct amount of plaster to squeeze through for perfect "key." There is no piling up of plaster between walls. The rigidity of the sheet of Arch Lath assists rapid plastering and reduces the cost of erection. Arch Lath is nearly a solid sheet of steel and therefore easy to handle, erect and plaster—there is no "give" in the entire "field" of lath.

Immediately after application the first coat of plaster can be scratched and made ready for the second coat without removing scaffolding. This saves time and labor.

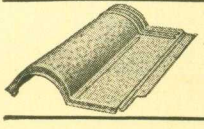
This brief description of Arch Lath will give you some idea of its possibilities as a sales influence—money saver and profit protector. Write us today for complete information and sample!



One Sheet of Arch Lath (27 x 96) grips the plaster at 8064 points; making the wall an integral unit of rigidity and strength, while minimizing possibility of cracking.

WHEELING CORRUGATING COMPANY, Wheeling, W. Va.

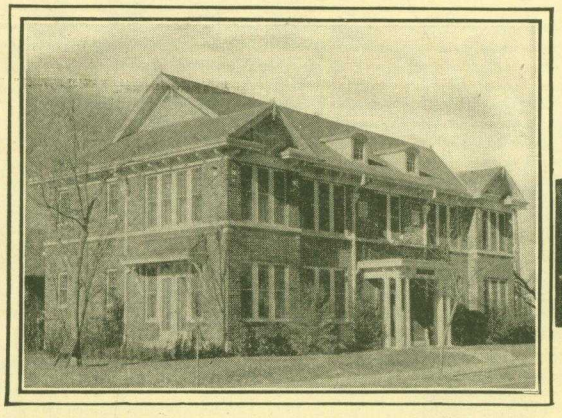
Branches: New York Philadelphia Chicago Minneapolis St. Louis Kansas City Chattanooga Richmond Des Moines

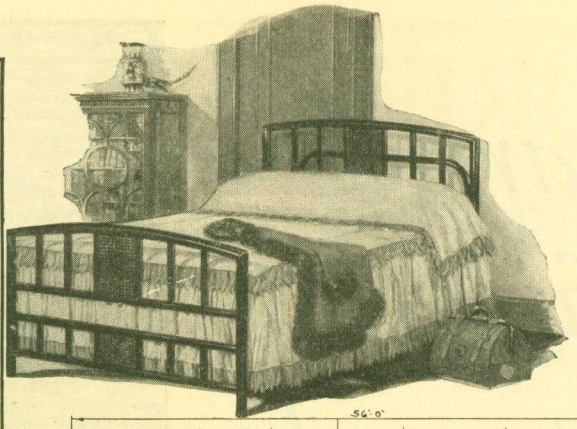


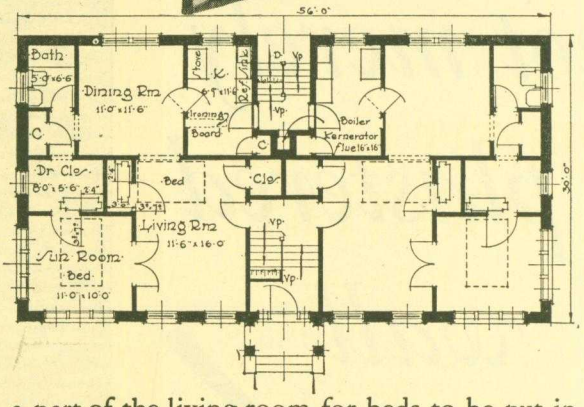
Wheeling Spanish Metal Tile

For a roof of enduring beauty at low cost, specify Wheeling Spanish Metal Tile. It is proof against rust, leaks and lightning. Permanent and highly practical as well as artistic and attractive. Write for full information.

Copyright 1928, Wheeling Corrugating Company



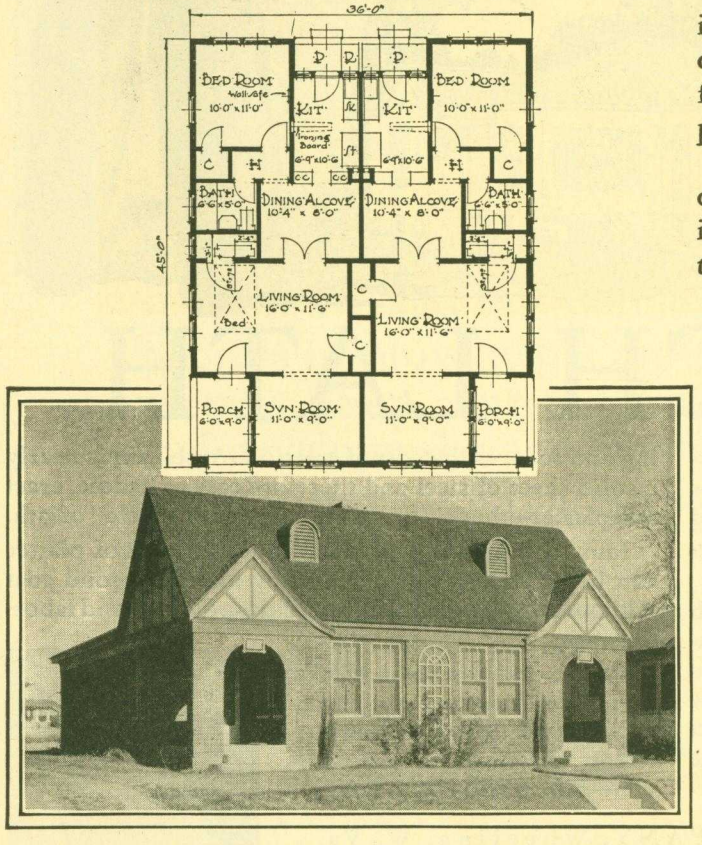




4 ROOMS *easily made into* 6

BY putting Murphy In-a-Dor Beds in the living room and the sun room, the builder of the apartment above gives six room convenience and comfort to a four room apartment.

In the duplex below, the sun room is too nearly a part of the living room for beds to be put in both, but again the builder gets a six room result from a four room plan.



Murphy In-a-Dor Beds can be used to advantage in any type of basic plan. They save money for owners of homes, apartments, hotels or clubs. They cut both first cost and upkeep by doing away with one-purpose rooms used only a part of the twenty-four hours.

You can install Murphy In-a-Dor Beds quickly and cheaply. No special construction is required. Once in place, these beds will be satisfactory as long as the building stands.

Write for This Book

"More Home in Less Space" shows, in color, just how Murphy In-a-Dor Beds look when placed in the different rooms of a house. This book pictures all styles and finishes of these beautiful, comfortable, convenient and lasting beds. You need this book in any talk with any prospect. It is free. Write for it, today.

THE
MURPHY
IN-A-DOR
BED

MURPHY DOOR BED COMPANY

New York City . . . 19 W. 44th St.
Chicago, Ill. . . 22 W. Monroe St.
Atlanta, Ga. . . . . 99 Luckie St.
Seattle, Wash. Terminal Sales Bldg.
San Francisco, Calif. . Crocker Bldg.
Los Angeles, Calif. . 1807 S. Main St.
Denver, Colo. . . . . 1534 Blake St.
Miami, Fla. . . . 234 Columbia Bldg.
St. Louis, Mo. . . 315 N. 10th St.
Detroit, Mich. 7th Fl., Kresge Bldg.
Birmingham Ala. . . 513 N. 21st St.
Cleveland, Ohio, 1140-42 Hanna Bldg.
Kansas City, Mo. . 1114 Grand Ave.
Dallas, Texas . . . 1919 Pacific Ave.
El Paso, Texas . . Neff-Stiles Bldg.
Houston, Texas . . . 2301 Main St.
New Orleans, La. . 319 Dryades St.
Montreal 698 St. Catherine St., West
Toronto . . . 21 King Street, East

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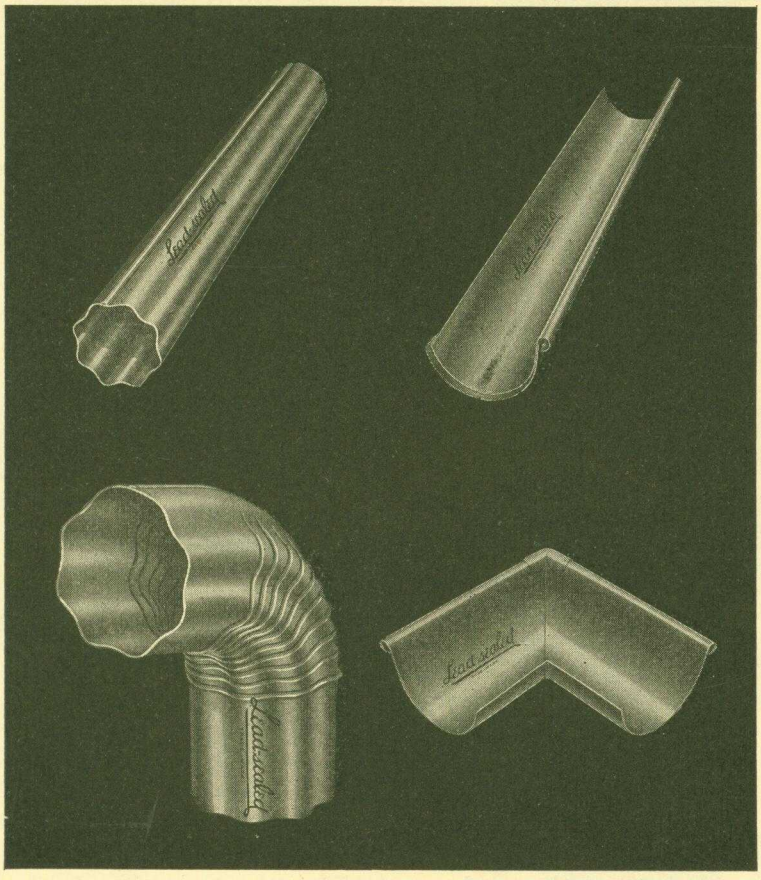
PURE LEAD - *most beautiful and enduring of materials - is now available for Metalwork in Inexpensive and Workable form*



PROFIT by this DISCOVERY!

FOR years builders and sheet metal men have looked on pure lead as the ideal sheet for building metalwork—provided it could be amalgamated to a stronger and more workable base of steel. The means to secure a firm amalgamation were discovered in this company's Canton, Ohio, plant and put to commercial use as "Superior Lead-Sealed" sheets.

The Best Test

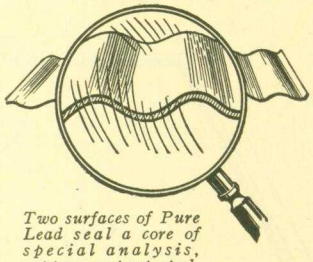
As roofing and siding on industrial plants, exposed to strong smoke, acids and salt air, Lead-Sealed has withstood years of the most severe test that metalwork can undergo. Sealed between heavy surfaces of imperishable lead, it shows no signs of deteriorating where more costly metal sheets have proved unsatisfactory.

An additional investment of about ten dollars will equip the average house with Superior Lead-Sealed metalwork. Being soft, level and of high ductility, it is readily formed into flashing, conductor pipe, eavestrough, gutters, etc., without breaking or peeling of the protective lead. Any competent sheet metal worker can install it.

Adds Known Value

The increased value to your building far exceeds the cost of using Lead-Sealed metalwork. Send for and examine a sample. We will gladly furnish you with complete information including costs, availability and use. Pin the coupon to your letterhead and mail, today.

THE SUPERIOR SHEET STEEL CO., Canton, O., Division of Continental Steel Corp.
—Makers of *Super-Metal*, *Galvannealed*, Galvanized and Long Terne Sheets



Two surfaces of Pure Lead seal a core of special analysis, copper content steel.

Superior Lead-Sealed

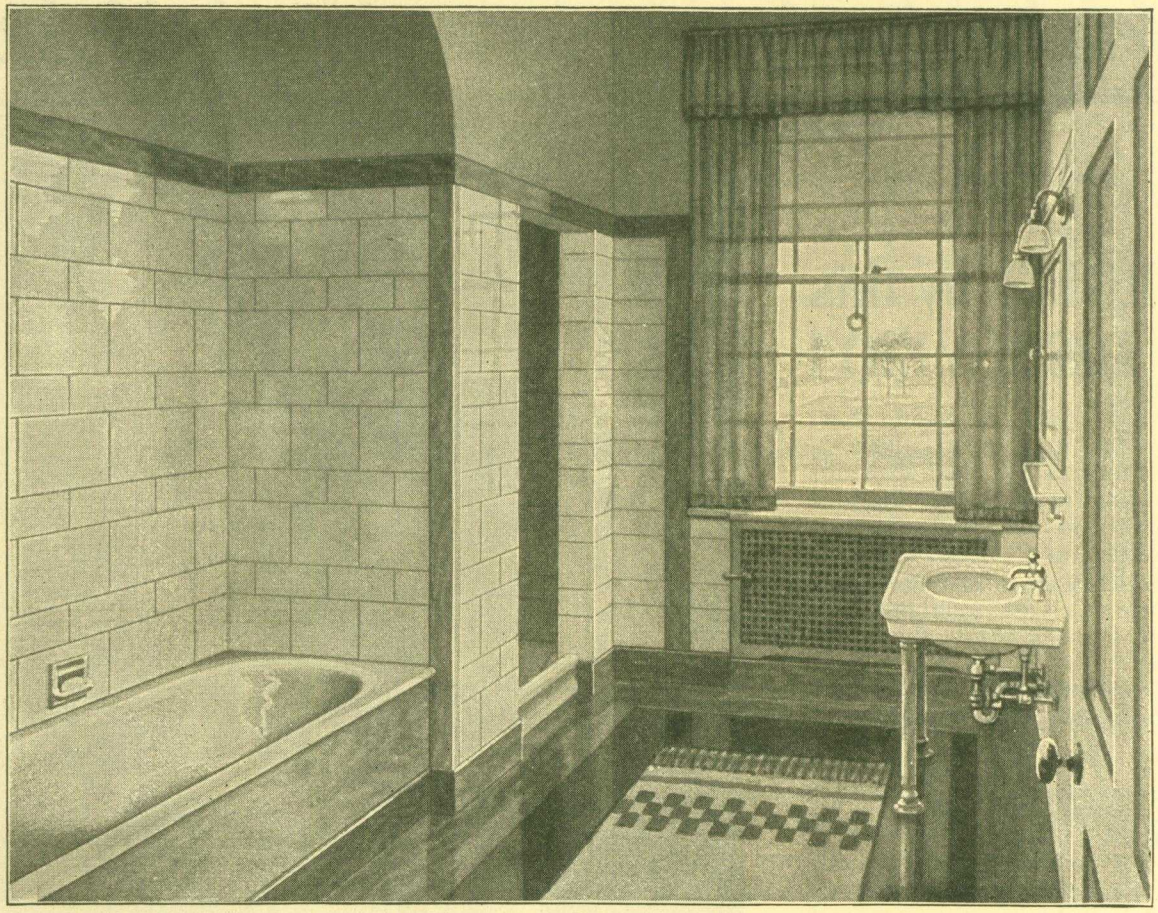
The Superior Sheet Steel Co., Canton, O., Division of Continental Steel Corp. —Makers of Super-Metal, Galvannealed, Galvanized and Long Terne Sheets.

Please send sample and detailed information on Superior Lead-Sealed.

Name.....

Address.....

BATHROOMS
of Rare Beauty and Distinction



One of Several Bathrooms in the Residence of Mr. Marshall Field, Lloyd's Neck, Huntington, Long Island. John Russell Pope, Architect

Because of the everlasting beauty of Vitrolite—its dignity—its possibilities for modern color and decorative effects—it was specified for the several bathrooms in the magnificent new residence of Mr. Marshall Field.

It is of more than passing significance that Vitrolite—the superlative vitreous slab material—was selected for this distinguished residence. Its distinctive charm and superior qualities make it especially suitable for the modern American Home.

The true worth of Vitrolite lies in its immaculate cleanliness, and in the fact that age can never dim or mar its lustrous fire-polished surface. Vitrolite never deteriorates. It cannot craze, chip, stain or discolor. It is as permanent as time itself.

Vitrolite with its variety of colors and surface textures surpasses all other materials in its unusual adaptability to modern color and decorative effects.

The services of the Art Department of the Vitrolite Company are available to architects and builders for the preparation of color sketches and to aid them in the technical details of Vitrolite installations. This service is yours for the asking.

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Suite 624, 133 W. Washington St., Chicago *Factory:* Parkersburg, W. Va.

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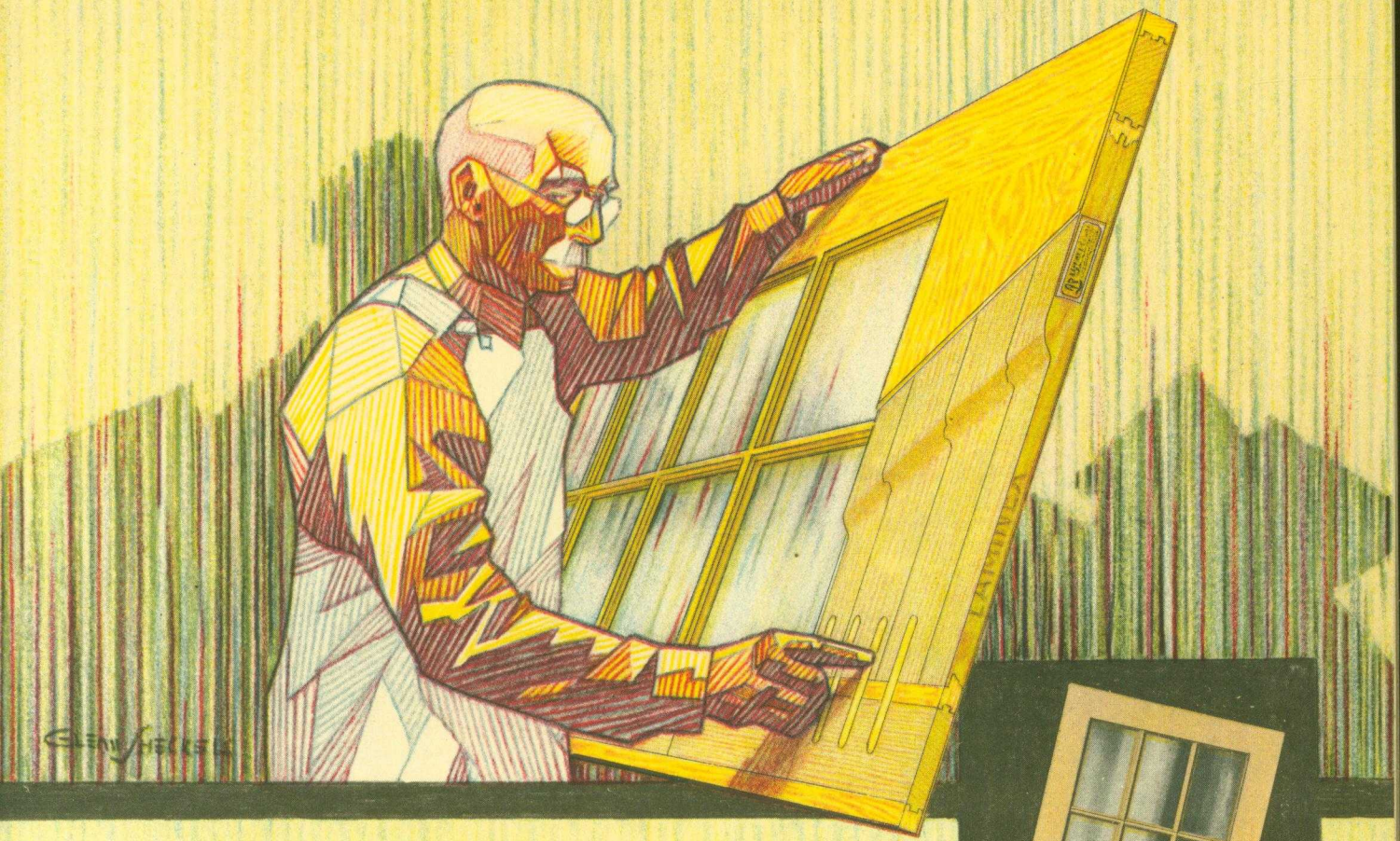

Why such dowel construction in Laminex doors?

WE put over-sized dowels where stiles and cross-rails meet in Laminex doors, to make absolutely sure that the doors will never sag. Each of these long dowels is ⅝ inch in diameter, giving 50% more strength and 30% greater holding surface than the shorter half-inch dowels often used.

But longer, larger dowels are not the only reason why a Laminex door is better than the ordinary kind. If you will look closely at the bottom rail and the stile in this illustration, where the wood has been cut away to show the method of construction, you will see that the rail and stile are built up on a core of separate blocks. These clear, vertical grained blocks, gripped between straight, full-length, rigid braces, neutralize among themselves any tendency of a Laminex door to shrink, swell or warp. All parts of a Laminex door, including the clear sheets of wood used to cover the stiles and cross-rails, are held together permanently by Laminex cement—a secret compound that is absolutely waterproof and actually stronger than wood.

Laminex French doors are made in all standard sizes and in many beautiful designs. Stiles and cross-rails may be obtained either in vertical or flat grain. All are constructed according to the Laminex principle of scientific stress-neutralization.

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Progressive lumber and millwork dealers can supply you promptly with popular designs of Laminex doors at reasonable prices. If you are unable to get Laminex doors from your local dealer, write us and we will give you the name of a dealer who will supply you. The success of Laminex has tempted other manufacturers to offer veneered doors, outwardly resembling Laminex doors, but lacking the moisture-resistance of genuine Laminex waterproof cement. No door but Laminex can stand the famous water-soaking tests. For your own protection, insist on doors that bear the yellow replacement guarantee label and the name "LAMINEX."

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REG. U.S. PAT. OFF.
WILL NOT SHRINK, SWELL OR WARP

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Gentlemen:

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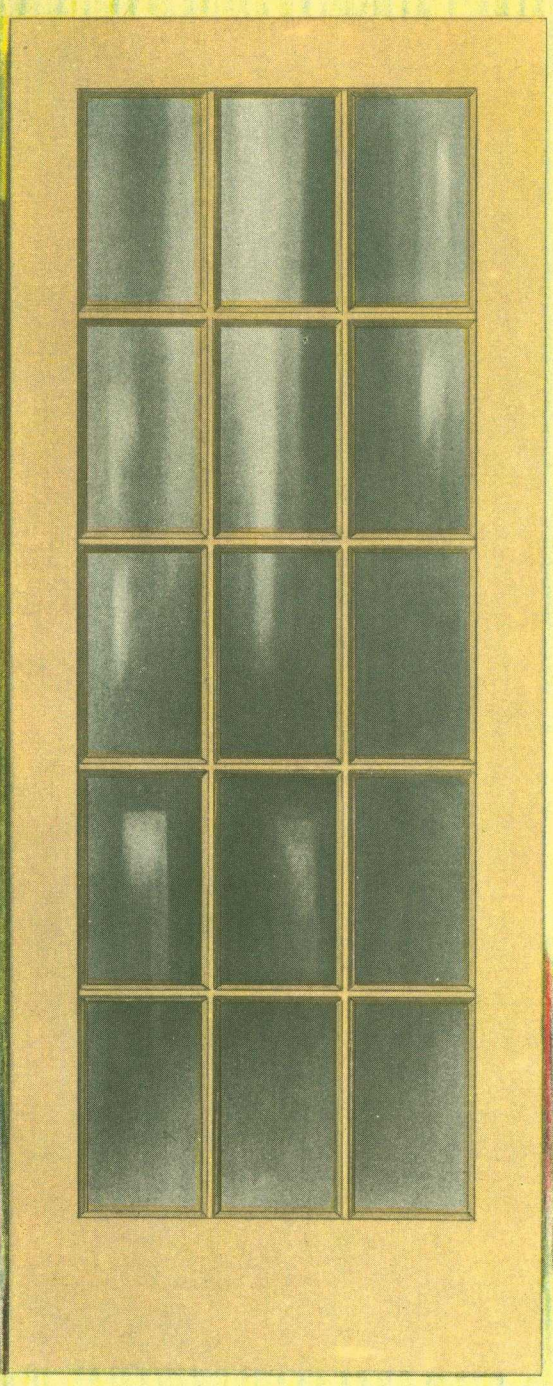
Here is a door you can trust never to sag or stick



WE get mighty enthusiastic when we start to describe our Laminex French door. And you'll be just as enthusiastic about it, yourself, after you have installed a few and find out that no Laminex door, whether it is a French door or any other type, can possibly give you any trouble. You'll never have to go back to a job to refit and refinish a Laminex French door. If you hang it right in the first place, your door troubles and the owner's door troubles are over for keeps.

You could even hang a Laminex French door before the plaster dries, (although we don't recommend it) yet the door would not swell or warp. In fact, no amount of moisture can hurt any Laminex door. To prove this, retail dealers frequently soak a Laminex door in water for days at a time—a public test that has convinced thousands that here, at last, is a genuine trouble-proof door, regardless of climatic conditions.

Laminex doors are now being manufactured of Philippine Hardwood, (commonly known as Philippine Mahogany), as well as Douglas Fir.

Hundreds of Laminex door soaking tests have been conducted publicly by retail dealers in all parts of the country, proving conclusively that dampness will never make a Laminex door warp, split or come apart.

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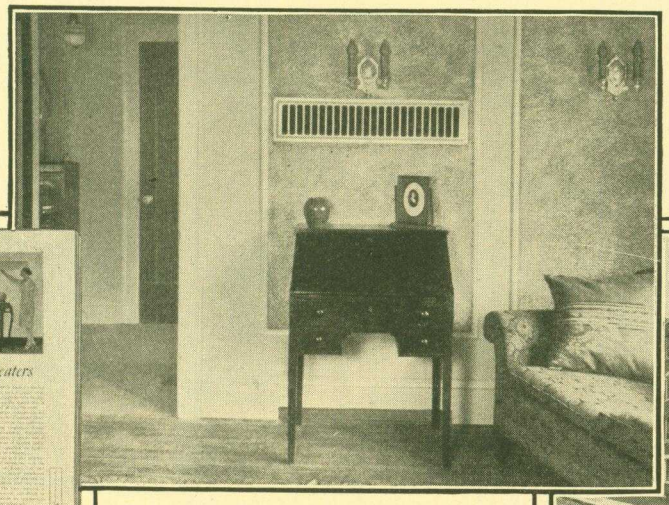
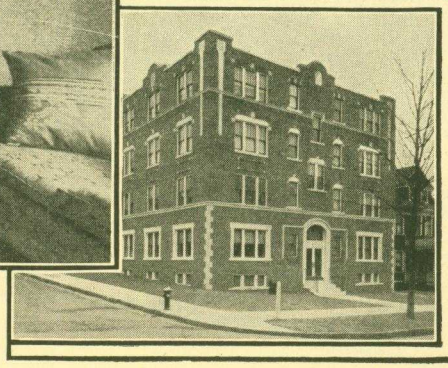
WILL NOT SHRINK, SWELL OR WARP

How Trane Concealed Heaters Meet These Demands of the Public



Morningside Realty Trust, Springfield, Mass.



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Greater freedom in arrangement
More beautiful rooms
No soiling of walls or drapes
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There is no place for the radiator in modern rooms. Refine it or disguise it as you will, it is always an intruder. Hidden or recessed radiators, radiator shields or screens, only partly solve the problem. The real solution is the Trane Concealed Heater, operating on an entirely different heating principle.

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Trane Concealed Heaters fit any make of heating system designed for radiators.

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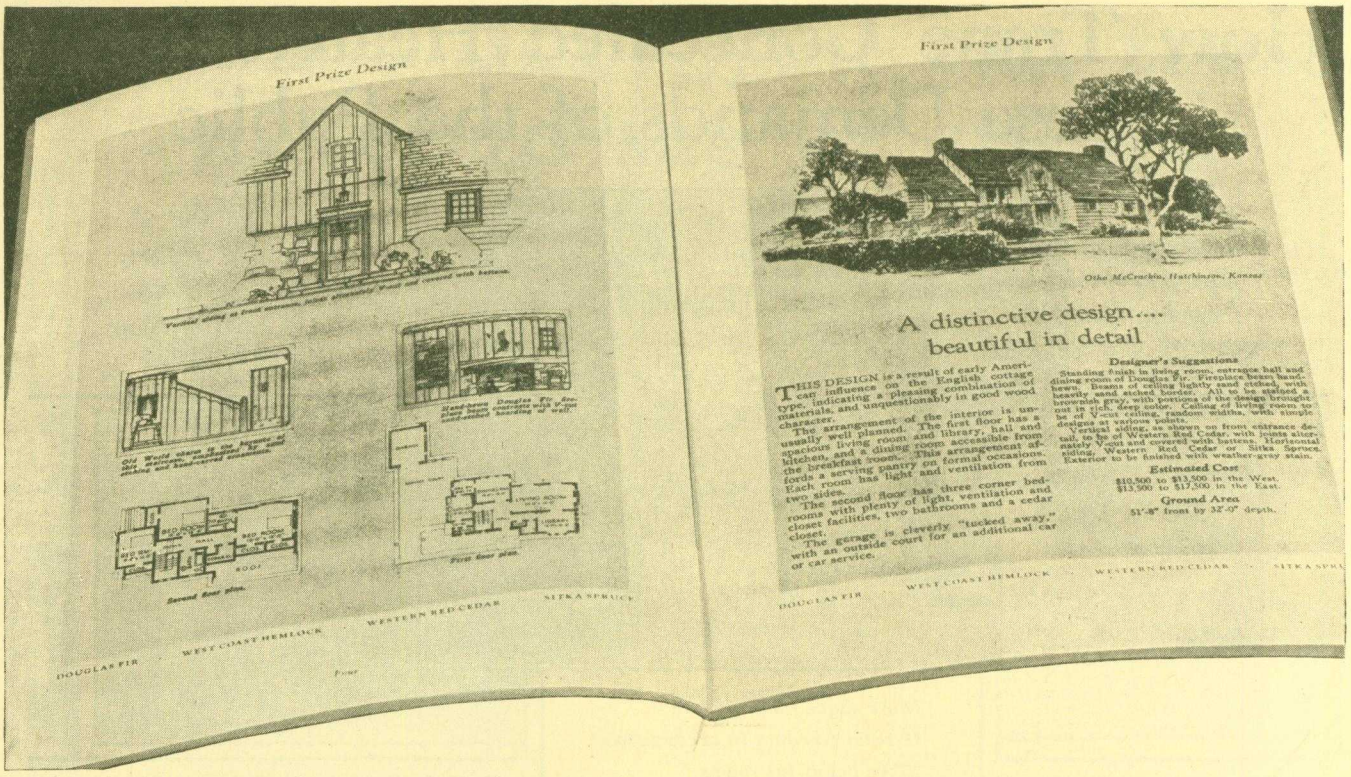

Let us mail you this book of prize home designs

THIS book contains the twelve prize winning designs in the West Coast Woods Architectural Competition. These designs were selected from several hundred submitted by over 200 architects.

You will find this book brimful of valuable suggestions for home building. Each design occupies two pages which give illustrated details of exterior and interior features, architects' sketches of the exterior elevations, floor plans and sufficient information to give you a pretty good idea of how to build one of these homes with the four woods of the Douglas Fir region . . .

Douglas Fir · West Coast Hemlock
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Working drawings and specifications for these twelve prize winning homes can be obtained for $25.00 from the West Coast Lumber Bureau, who offered this very successful competition, sponsored and conducted by the Washington State Chapter of the American Institute of Architects.

Every contractor and builder will appreciate some time or the other having a copy of this book in his file for reference and ideas. We will be glad to send you a copy upon request. *Address* West Coast Lumber Bureau, Mt. Hood Building, Longview, Washington.

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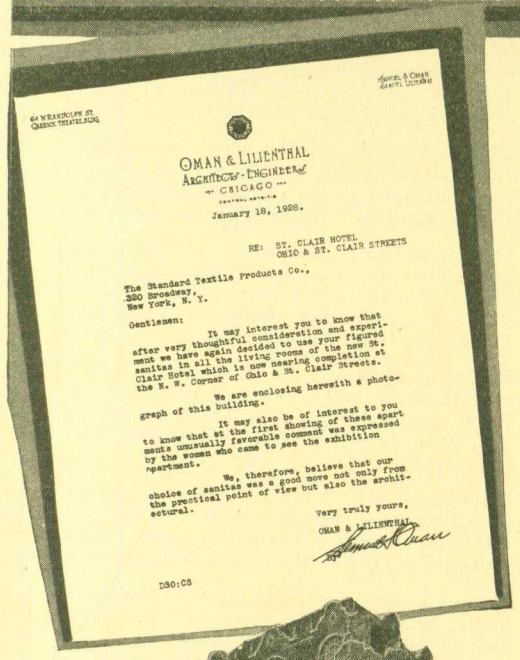

OMAN & LILIENTHAL
ARCHITECTS-ENGINEERS
CHICAGO

January 18, 1928.

RE: ST. CLAIR HOTEL
OHIO & ST. CLAIR STREETS

The Standard Textile Products Co.,
320 Broadway,
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Gentlemen:

It may interest you to know that after very thoughtful consideration and experiment we have again decided to use your figured sanitas in all the living rooms of the new St. Clair Hotel which is now nearing completion at the N. W. Corner of Ohio & St. Clair Streets.

We are enclosing herewith a photograph of this building.

It may also be of interest to you to know that at the first showing of these apartments unusually favorable comment was expressed by the women who came to see the exhibition apartment.

We, therefore, believe that our choice of sanitas was a good move not only from the practical point of view but also the architectural.

Very truly yours,
OMAN & LILIENTHAL

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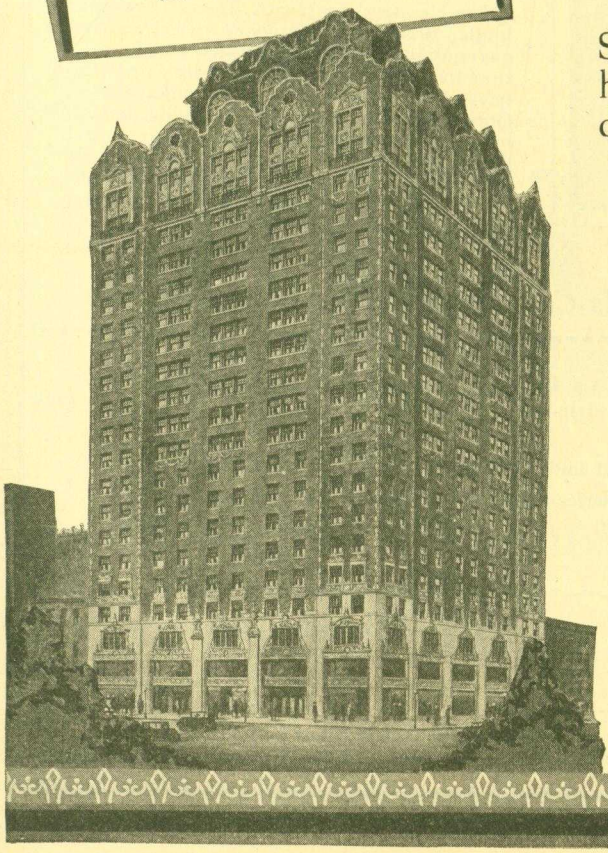

In All of the Living Rooms New St. Clair Hotel Chicago

"At the first showing of these apartments unusually favorable comment was expressed by the women who came to see the exhibition apartment."

(*From letter of Oman & Lilienthal, Architects*)

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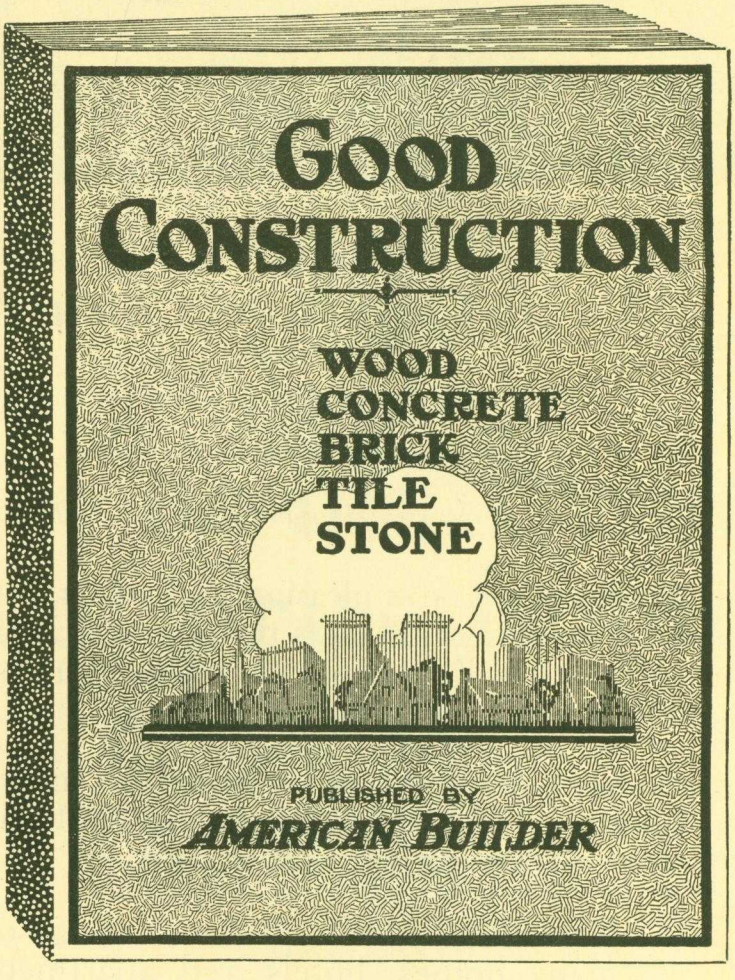

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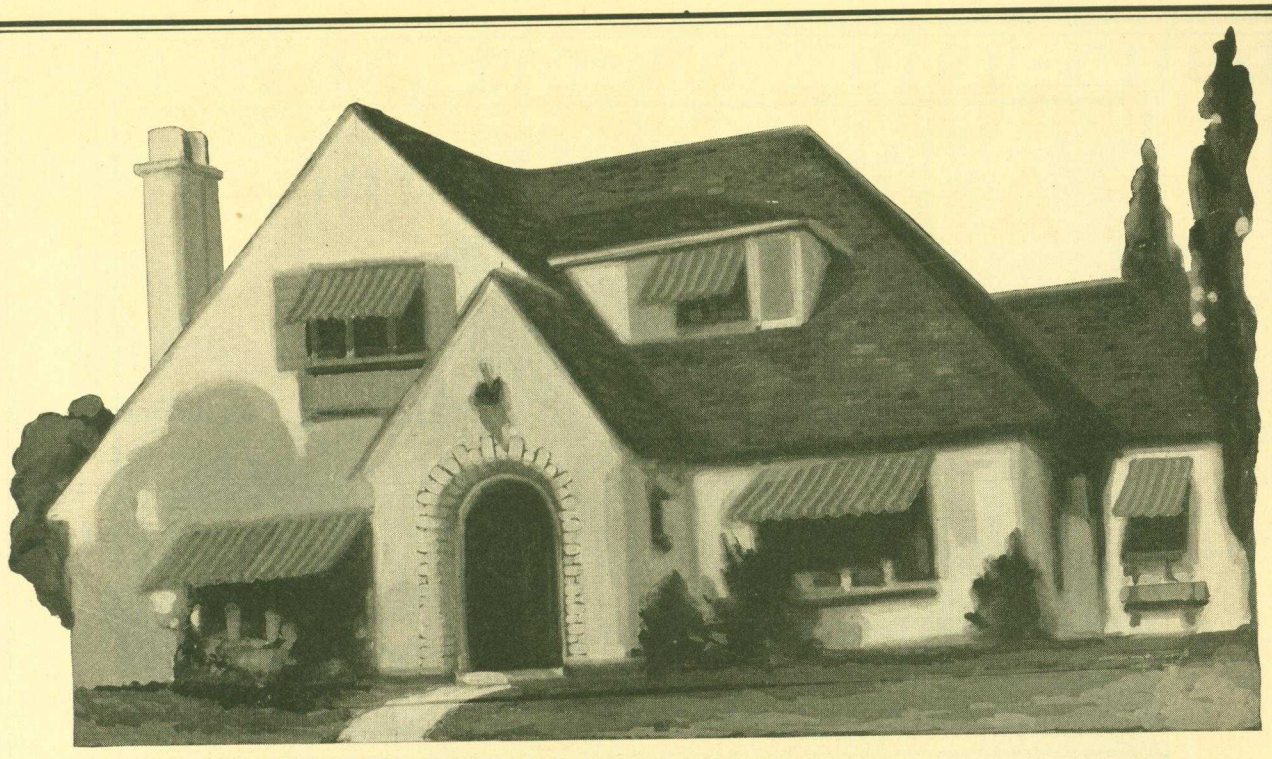

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Please send free samples of INSULITE and copy of "Increasing Home Enjoyment."

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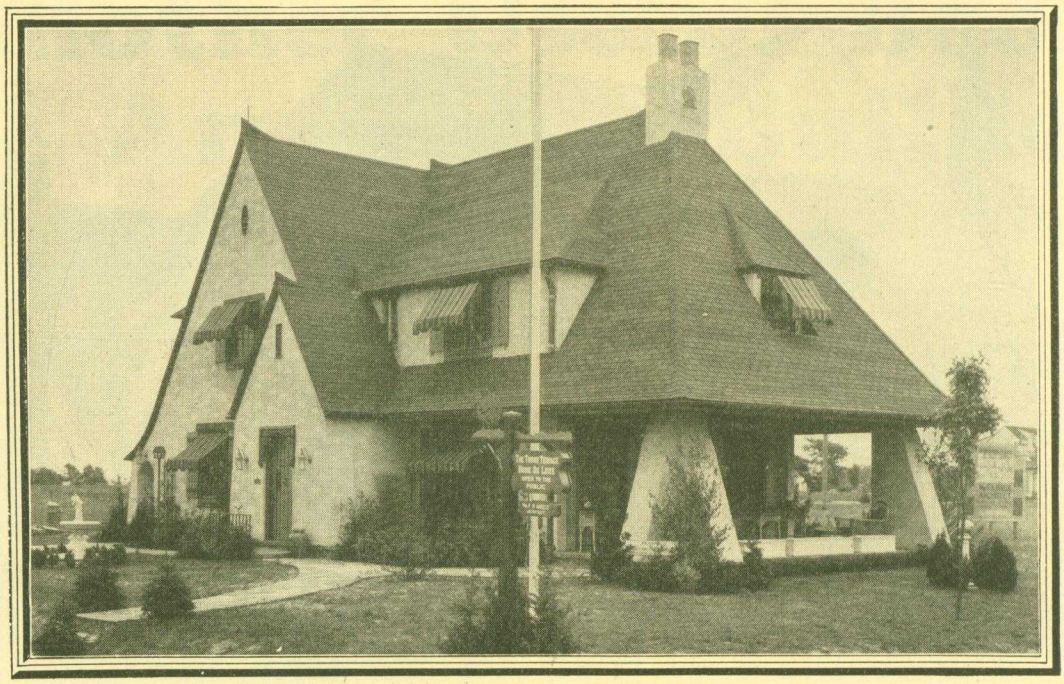
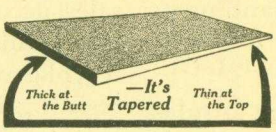
Build Weather-Tight With Insulite



Winthrop Shingles

Selected for Home DeLuxe

Like a roll call of nationally known high quality products is the list of materials used in The Tudor Terrace Home De Luxe, built to demonstrate the best in Twentieth Century home building.



The Tudor Terrace Home De Luxe stands on Shore Road in Northfield, New Jersey, within sight of Atlantic City's famous skyline. The architect, Wm. F. B. Koelle of Philadelphia and Atlantic City, planned the house, selected each material and supervised the construction.

For the high pitched roof, an important architectural feature of this English type of stucco house, Mr. Koelle selected Winthrop Tapered Asphalt Shingles—the shingle of lasting beauty. The official booklet on The Home De Luxe says: This durable, beautiful and fireproof roof adds greatly to the attractiveness of the home.

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For any house in any surroundings there is a non-fading color in Winthrops — the shingles that are proof against rotting, rusting, cracking, and splitting. They do not saw through their nails. They bear the Class C Label of Underwriters' Laboratories.

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1032 Brooks Bldg., 223 W. Jackson Boulevard, Chicago, Illinois
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-the Big Butt Shingle

Winthrop
Tapered Asphalt Shingles

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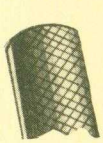
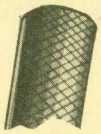
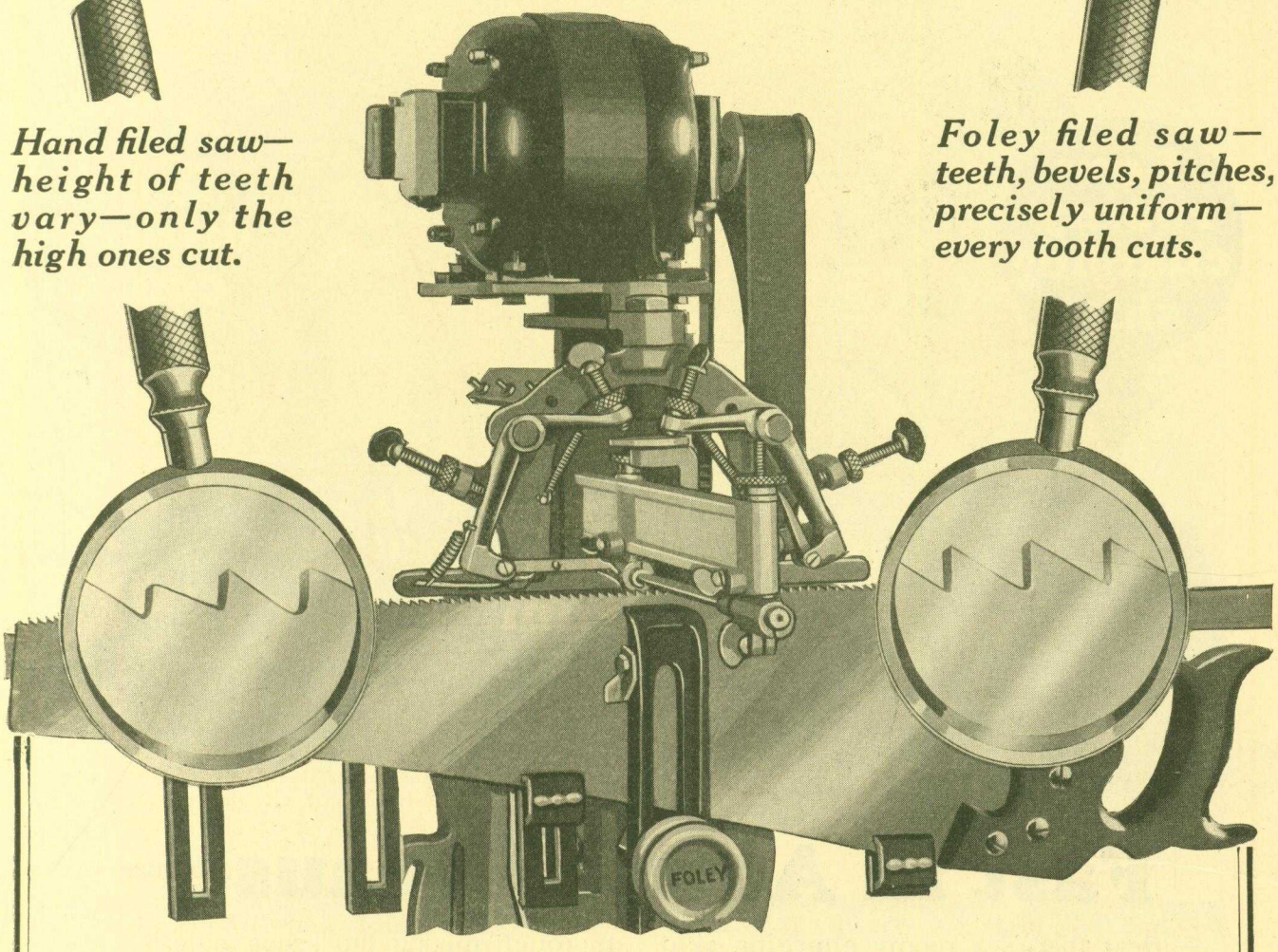
"Oh Man, How a Foley-Filed Saw Does Cut!"



Hand filed saw—height of teeth vary—only the high ones cut.



Foley filed saw—teeth, bevels, pitches, precisely uniform—every tooth cuts.



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YOU'LL marvel at it—and what's more you'll make money by it. A Foley-filed saw "cuts with eagerness"—smooth, true to the line and FAST! Saws stay sharp longer, too. Your men do better work, and do it faster—and you'll have an extra volume of work for the same wages. That means a sure extra profit!

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And, the skip can be loaded from ground level without need for elevating platform!

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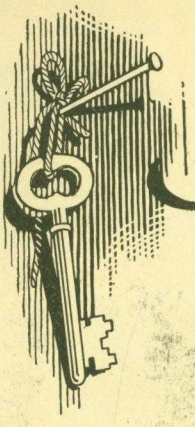
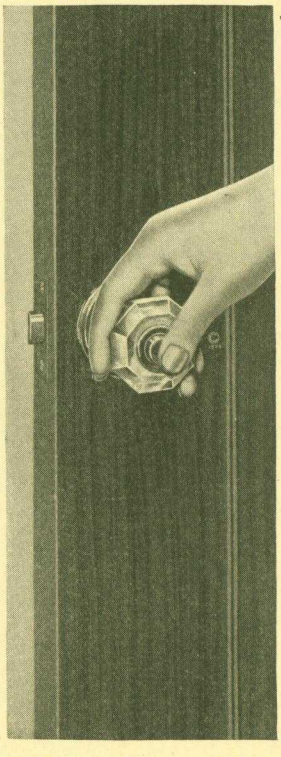


Inside Keys are out of date!

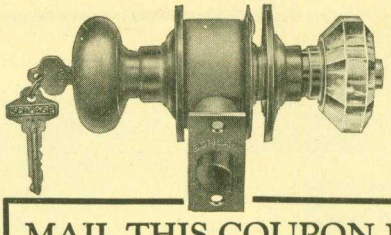
home buyers *want* MODERN *door locks*

SCHLAGE *Button* LOCKS



TO LOCK: just press the button in the knob

TO UN-LOCK: just turn the knob



CAN you imagine a *modern* woman buying a house equipped with old-fashioned oil lamps, and spending her time cleaning dirty chimneys and trimming wicks? You know she would not buy such a house. You put in MODERN electric lights so all she has to do is *press the button*. Why not use the same good judgement in the matter of door locks?

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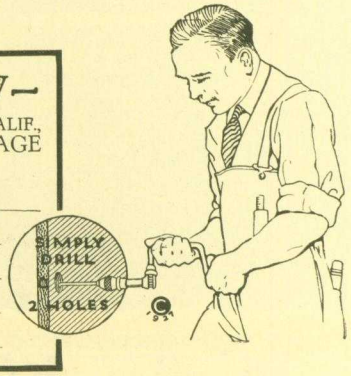

The MODERN *Lock for* MODERN *Buildings*

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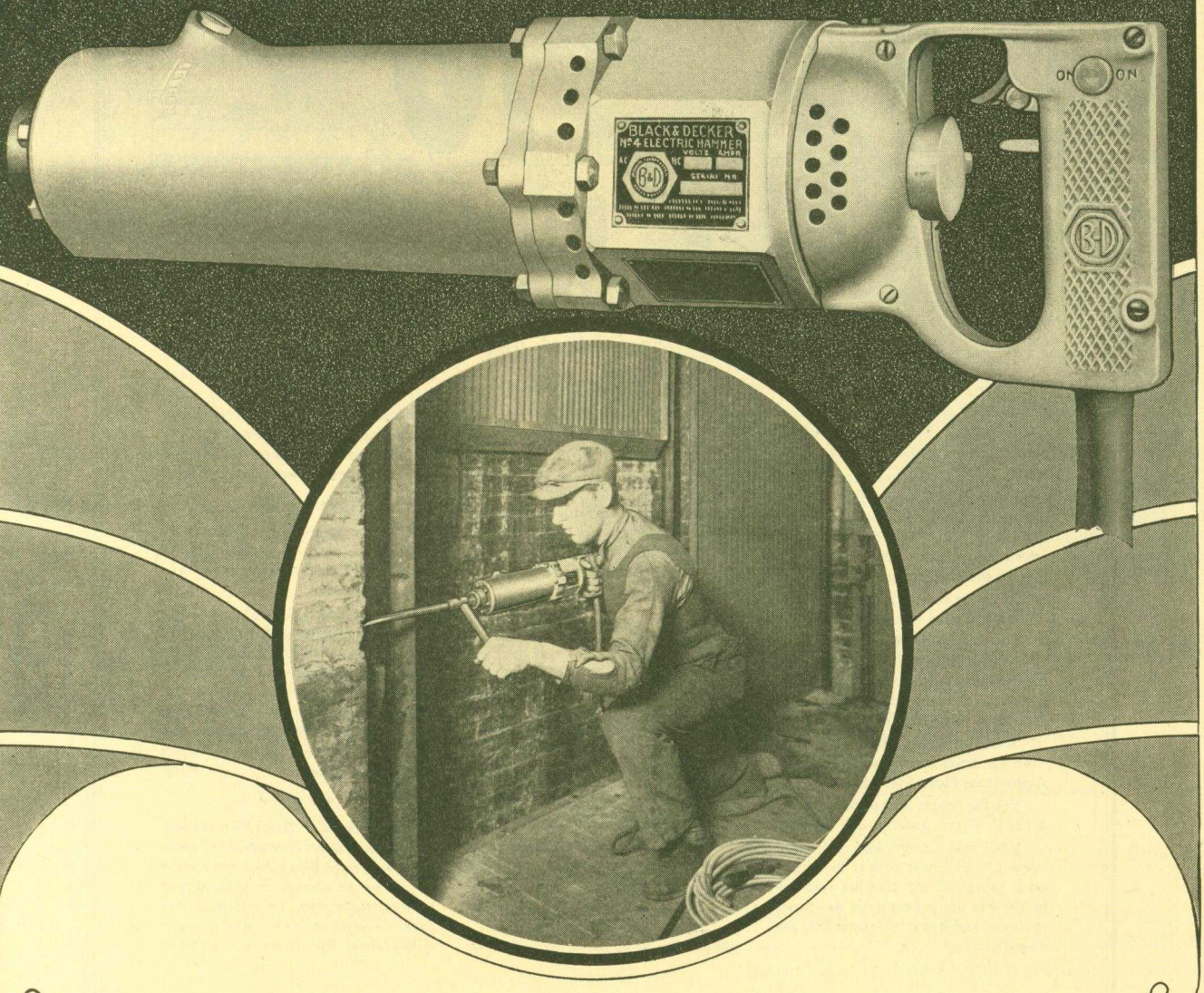
BLACK & DECKER

Electric Hammer



The advent of the Black & Decker Electric Hammer marks one of the greatest advancements in the history of labor-saving tools. This remarkable Electric Hammer accomplishes in a few minutes what, in the past, has required hours of the most laborious work with hand tools. Striking hard blows at the rate of 2300 per minute, it will drill through concrete, brick or whatever the material may be, at an amazing speed. It will also chip steel, drive bushing tools and all types of special form tools. Just plug it in an electric light socket and pull the trigger.

Write for illustrated bulletin

The BLACK & DECKER MFG. CO.

TOWSON, MD., U. S. A.

Black & Decker Mfg. Co., Limited, Toronto, Ontario

Black & Decker, Limited, Slough, Bucks, England

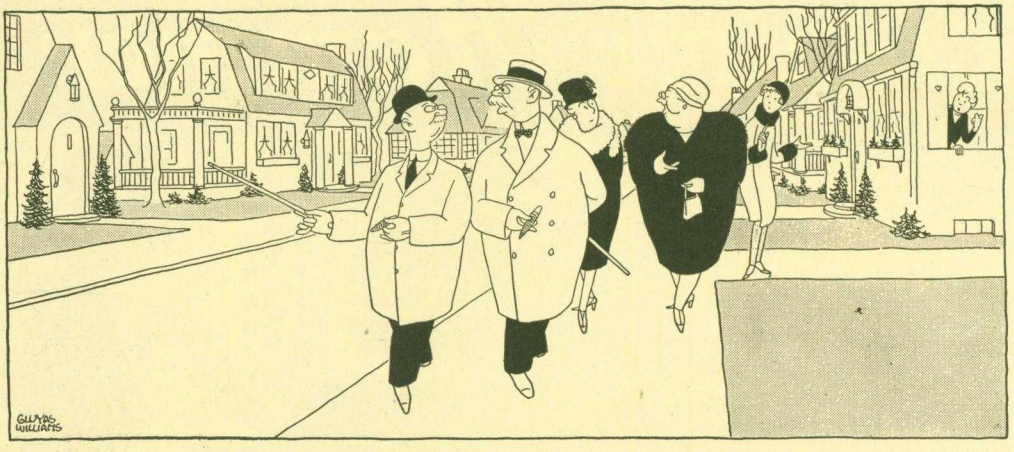
Branch Offices with Service Stations in

BOSTON NEW YORK OAKLAND, CAL. ATLANTA DETROIT BALTIMORE KANSAS CITY LOS ANGELES PITTSBURGH
BUFFALO PHILADELPHIA ST. LOUIS DALLAS CHICAGO MINNEAPOLIS CLEVELAND SEATTLE INDIANAPOLIS

THE SATURDAY EVENING POST

THE WALLOPS

[*No. 15 of a series. No. 16 will appear April 21*]



All the women in Flickerwood—but one!

AFTER a tremendous Sunday dinner of roast beef, ice cream and chocolate sauce, George and Clara Wallop took Cousin Malcolm and Cousin Nettie for a little air.

"Now there's a handsome house," George pointed. "Mrs. Willis lives there, nice woman and well built—the house, that is. I tell you, Malcolm, these houses are as fine as money can buy; copper gutters, tiled bathrooms, brass pipe—"

"Brass pipe, eh?" said Cousin Malcolm. "Think you need it round here?"

"You bet we do. Water's good and all that but it rusts the dickens out of cheap pipes. Fills 'em up with rust, so if the cook runs the hot water you can't get a drop upstairs. I know."

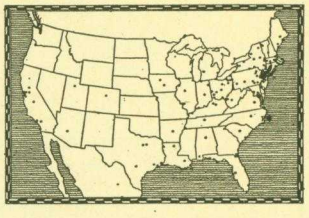
"Well," observed Cousin Malcolm. "We use brass in my town—use that Alpha Brass Pipe. Ever hear of it?"

"Yes, the people next door to us had it put in. Pretty good pipe?"

"Yes," said Cousin Malcolm, "you know it's got more copper in it than other pipes and my plumber told me he liked to use it because it was easier to thread and it was guaranteed by the manufacturers."

"Guaranteed? That so? Well, that sorta makes you feel safe, doesn't it? Don't have any trouble getting it out West where you live, do you?"

"Oh no, not a bit. I said to my plumber, 'Now Fred,' I said, 'don't get that Alpha Brass Pipe if it's some special thing that takes months to get.' And he said, 'don't you worry about that, Mr. Donaldson, I can get Alpha Brass Pipe easy. Most jobbers keep it in stock*.'"



*STOCKS OF ALPHA BRASS PIPE

Each dot, on this map, represents a city where Alpha is carried in stock by one or more jobbers. (In New York, for instance, by 96 jobbers.) Your plumber can easily get it from these distributors.

PLUMBERS—*Your own jobber probably stocks Alpha. If he doesn't, we can tell you one near you who does.*

"Alpha. I'll have to remember that name," said George Wallop. "We'll have to replace our rusty pipe sometime and this Alpha thing sounds pretty good. You know most everybody here in Flickerwood has brass pipe. The women all say that rusty water ruins their washing, and they make their husbands put in brass."

* * *

All but one. If you look carefully at the picture above you will see that Lily has stopped for a moment to hear some bad news from Mrs. Bronson.

"Straight down through my living room ceiling," wailed Mrs. Bronson. "It's just pouring down, and flooding everything. We've telephoned the plumber, but everything is ruined. Oh, why did we put in cheap pipe—why didn't we use brass pipe? It only would have cost us about $100 more than the cheapest iron or steel pipe."

* * *

How about yourself? How's the water pressure in your house? How about red water flaked with rust? Why not ask your plumber to give you an estimate on replacing your worn-out water pipes. Or, replace little by little, the worst one first... And remember Alpha *Brass Pipe, it* really *is different!*

ALPHA BRASS PIPE *made from a special kind of* **CHASE BRASS**

CHASE BRASS & COPPER CO., Incorporated, Waterbury, Conn.

Copyright '28 C. B. & C. Co., Inc.

ANOTHER full page in the *Saturday Evening Post*, telling its eight million readers that Alpha Brass Pipe can be obtained all over the United States.

This advertisement is the fifteenth of a series appearing in that publication. It will also appear in *Time.* Another series, which includes full color pages, is running in *House & Garden* and *House Beautiful.* Now, we are adding *Good Housekeeping* with a circulation of approximately one and a half million, to our list of general magazines. The first *Good Housekeeping* advertisement, a full page in color, will appear in the May issue.

Since we began to advertise Alpha Brass Pipe three years ago, the sales have tripled, and since we started national advertising the sales have gone up even faster than we expected. These campaigns are producing results.

Plumbers and jobbers are invited to write for information regarding sales helps, direct mail pieces, installation signs, etc., which will be furnished imprinted with the dealer's name.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Balsam-Wool

—the *flexible* insulating and sound deadening blanket

SOLD THROUGH RETAIL LUMBER DEALERS

When Competition Threatens between your house and the other builder's—

This *flexible* Balsam-Wool insulation keeps your cost down and makes the sale

IT makes the sale because when you insulate with Balsam-Wool you can look your customer straight in the eye and *answer every question without evasion.*

Balsam-Wool *costs you so little* that it scarcely affects the price of the house at all.

You know you have done the scientific job of building and insulating. Sound frame, standard building practice. All the features and accessories, too, that women are demanding.

You put this *flexible* Balsam-Wool in walls and roof. You tuck pieces of this *flexible* insulation in all around window frames and door jambs. A *perfect* insulating job.

And *now* with the walls and roof made heat-tight you can put in a *smaller* heating plant —cut down the radiation.

You *save* nearly enough to *pay* for the Balsam-Wool.

Just tell *this story*—and you'll *sell your* houses right along, even when the other contractors have almost forgotten what a prospect looks like.

Special Correspondence Invited. Write us for anything you want to know about Balsam-Wool. Our Technical Department will gladly tell you about specifications covering various methods of application, its use for sound-deadening purposes, etc. Balsam-Wool is made in both *full inch* and half-inch thicknesses. If your lumber dealer doesn't handle it, let us know. We will direct you to a reliable dealer who does.

WEYERHAEUSER FOREST PRODUCTS

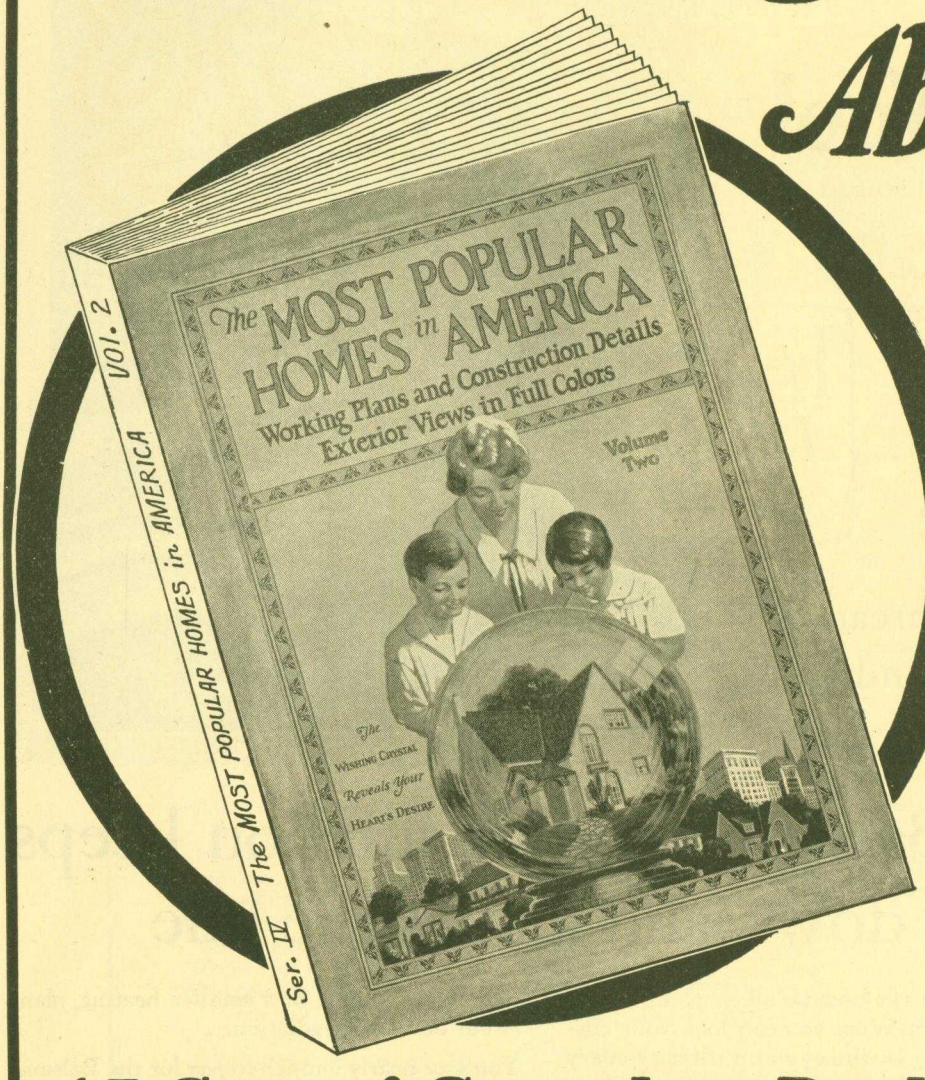
The Weyerhaeuser Guarantee is behind Balsam-Wool. It assures highest quality and lasting satisfaction to users.

WOOD CONVERSION COMPANY, Cloquet, Minnesota

Makers of both flexible and rigid insulations

Sales Offices: MINNEAPOLIS, Baker Building · CHICAGO, 360 North Michigan Avenue · NEW YORK, 101 Park Avenue
DETROIT, 503 Stephenson Building · KANSAS CITY, 3525 Broadway

You Get This Big New Book *Absolutely* Free!



"Most Popular Homes In America —VOLUME TWO"

is a companion book to *Volume One,* which has had a phenomenal sale in the past year. *Volume One* has been repeatedly called the most beautiful and useful home design book ever printed.

The new book, "*Volume Two*", is even more beautiful in appearance and contains 20 more full color plates than Volume One. If you already have Volume One, you will certainly be delighted with Volume Two.

We have on hand only a limited number of this new book—they are going rapidly. If you want yours, send for it now, *today,* before the supply is exhausted.

15 Sets of Complete Building Plans

FIFTEEN of the home designs in this wonderful book have complete working drawings, scale one-eighth inch and larger. You can build direct from these drawings, thus giving you an architectural service worth a neat sum of money, yet we include them in this wonderful book and send it to you absolutely free of cost.

These working drawings are only one of the many valuable features of this remarkable book. In addition, there are *Twenty Pages* of designs printed in four colors. Many pages of high-class half-tones reproduce actual photographs of beautiful interiors, furnishings, modern home conveniences, etc., etc.

Clip and Mail This Coupon—NOW!

THE AMERICAN BUILDER A.B. 5-28
1827 Prairie Avenue, *Chicago, Ill.,* *1928*

Enclosed find $2.00 for which ENTER / RENEW my subscription to The American Builder for one year and send me free and postpaid a copy of your book "MOST POPULAR HOMES IN AMERICA"—Vol. 2.

NAME.....

ADDRESS.....

POST OFFICE.....STATE.....

My occupation is (Check Only One)

☐ Dealer ☐ Builder ☐ Architect ☐ Real Estate ☐ Miscellaneous

How to Get Your Free Book

This useful and handsome book will be sent you Free and Postpaid with a new or renewal subscription to "American Builder" at the regular subscription rate, $2.00 for *one year*. $2.00 pays for the subscription —the book is a gift.

The subscription may be new or renewal, or it can be an extension of present subscription, but in all cases *must be sent direct to "American Builder" and be accompanied by check, money order or currency for $2.00.* Subscriptions sent in any other way will not entitle sender to free book.

OFFER GOOD IN U. S. AND CANADA
Add $2.00 to Foreign Countries

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

ACCEPT NO SUBSTITUTE

Sterling

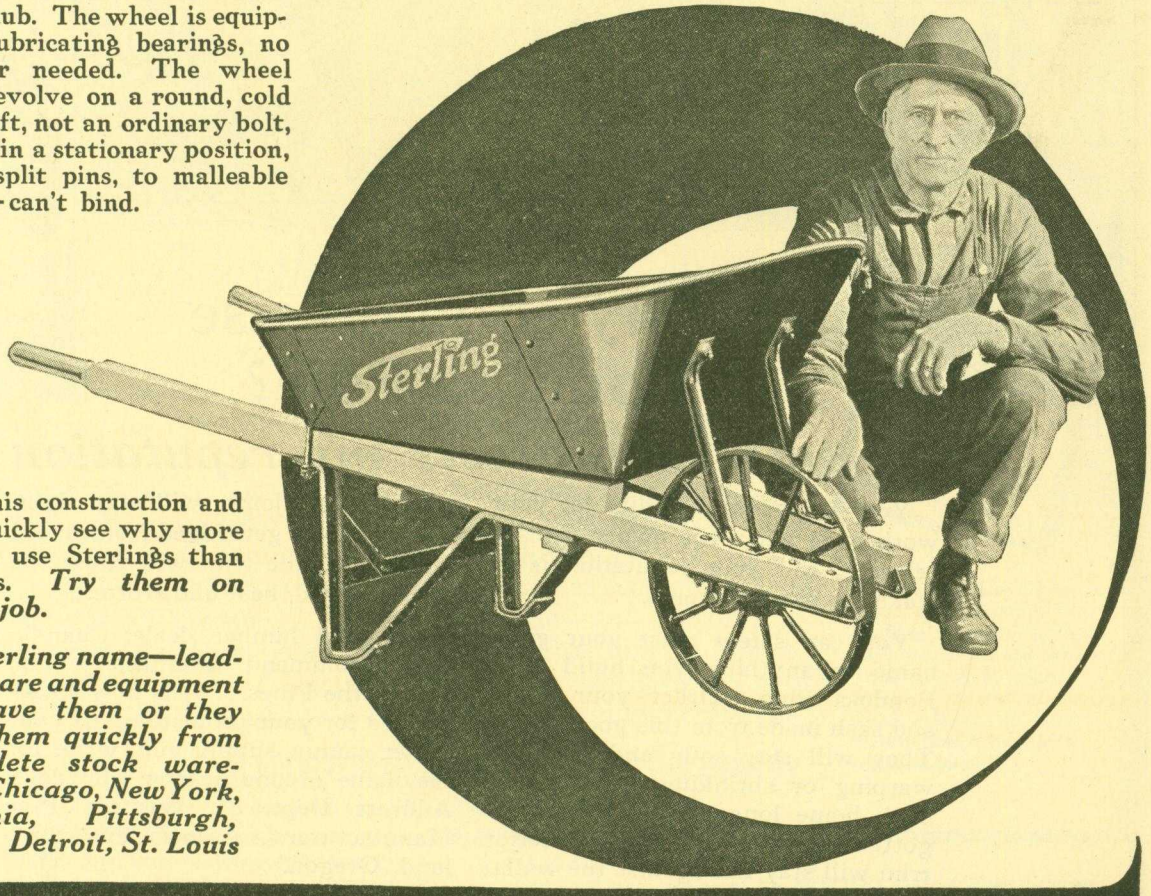
"10-spoke" wheel with a smooth tread gives greater strength, rigidity and service

No part of a barrow receives as hard abuse as does the wheel—bumped over rocks, jammed against walls, charging hoppers—sharp twists and turns with a full load. To withstand this severe usage Sterling found that the ordinary barrow wheel was not strong enough. In the Sterling wheel you will find a specially engineered idea. The wheel has "10 spokes" instead of the usual 8. The spokes are riveted and shouldered to the tire and cast to a wrought steel hub. The wheel is equipped with self-lubricating bearings, no oil service ever needed. The wheel and bearings revolve on a round, cold rolled steel shaft, not an ordinary bolt, which is keyed in a stationary position, by means of split pins, to malleable iron brackets—can't bind.

SPECIAL STERLING FEATURES

Self-lubricating bearings	Selected maple handles
10-spoke wheel	Special tubular steel handles
Malleable iron brackets	Handles clamped—not bolted
Smooth wheel face	Top of tray reinforced
Wrought steel hub	Channel steel legs
Riveted and cast to hub spokes	Riveted leg braces
Fixed rolled steel axle	Extra leg shoes
"V" front tray braces	Wrought iron handle tips

All parts interchangeable



Compare this construction and you will quickly see why more contractors use Sterlings than any others. *Try them on your next job.*

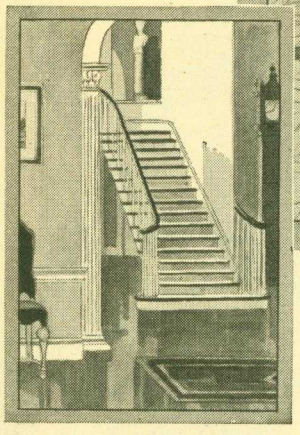
Buy by Sterling name—leading hardware and equipment dealers have them or they can get them quickly from our complete stock warehouses at Chicago, New York, Philadelphia, Pittsburgh, Cleveland, Detroit, St. Louis

STERLING WHEELBARROW COMPANY

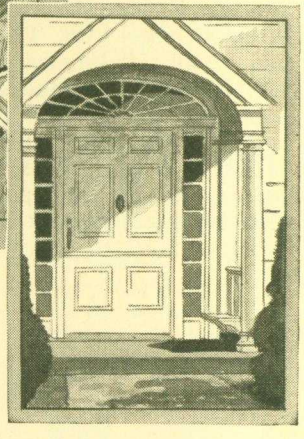
STERLING ON A WHEELBARROW MEANS MORE THAN STERLING ON SILVER

Milwaukee Wisconsin

This well-seasoned wood can be used to splendid advantage in the main stairway, including the railings and balustrades. Pondosa takes paint beautifully.



Outside, too? Indeed, yes. Doors especially, made of Pondosa Pine, hang snug and tight and true — and stay that way against all weather.



Why should I use Pondosa Pine?

Because it protects my reputation

Your legal responsibility for your work ends when the owner signs a release. But your reputation is at stake for years to come.

You can safely trust your good name to anything you build with Pondosa Pine. Order your doors and sash made from this good wood. They will stay snug and true; no warping or shrinking. Locks will click home long after you are forgotten. Base-boards, and all interior trim will stay flat against the walls; mortises and joints will stay tight. Paint will not get ridged from raised grain. Outside trim will resist the rigors of cold, heat and storm.

All good lumber dealers handle and recommend Pondosa — "The Pick o' the Pines." It is now trademarked for your protection. If your dealer cannot supply you, write for the name of one nearby who does. Address Dept. 85, Western Pine Manufacturers' Association, Portland, Oregon.

Pondosa Pine

The Pick o' the Pines

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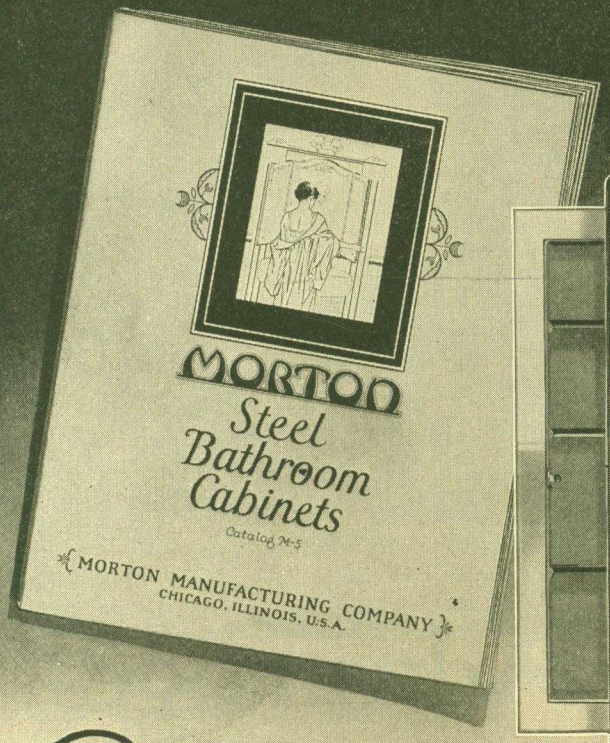
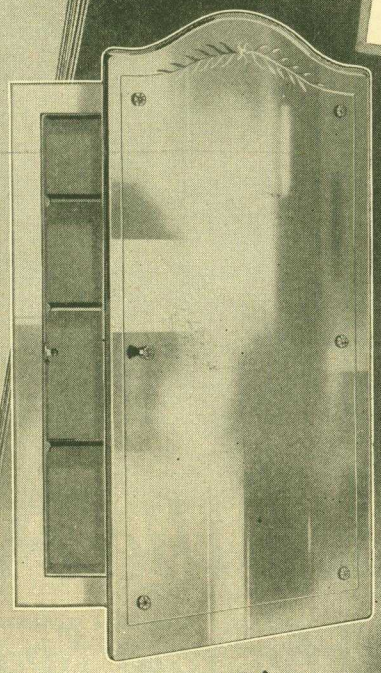
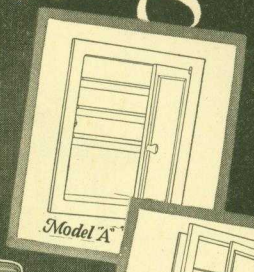
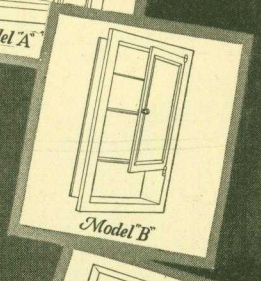
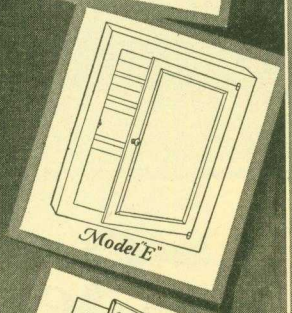
This New Catalog

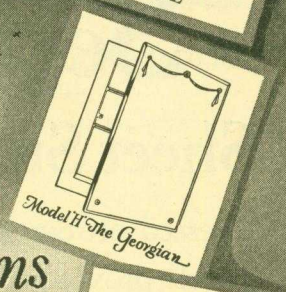


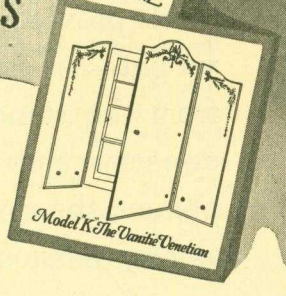












Model "F" The Venetian

Solves all bathroom cabinet problems

JUST off the press! Everyone interested in solving bathroom cabinet problems should immediately obtain a free copy of this helpful 24-page catalog. Beautifully printed in three colors, eleven models fully described and illustrated, including installation details. Actually a work of art yet practical from every standpoint. Easy to read and worth reading from cover to cover. Morton Steel Bathroom Cabinets are designed to conform with every bathroom cabinet requirement, practically and artistically. The line includes such exceptional models as the "Venetian," "Vanitie Venetian" and "Georgian," with etched, all-mirror doors which conceal the cabinet. Built to remain attractive and serviceable indefinitely without upkeep. Installed with minimum labor —"Out of the carton into the wall."

Morton Exclusive Features of Construction include rounded sanitary corners, special friction catch, sturdy hinges, crystal glass knob. Made of steel throughout, beautifully white enameled.

MORTON MANUFACTURING COMPANY
5102 WEST LAKE STREET-CHICAGO, ILL. U.S.A.

Send the Coupon for a *New* MORTON Catalog.

MORTON MANUFACTURING CO., 5102 West Lake St., Chicago, Ill.
Without obligation, please send me a catalog of the MORTON Line of Steel Bathroom Cabinets.

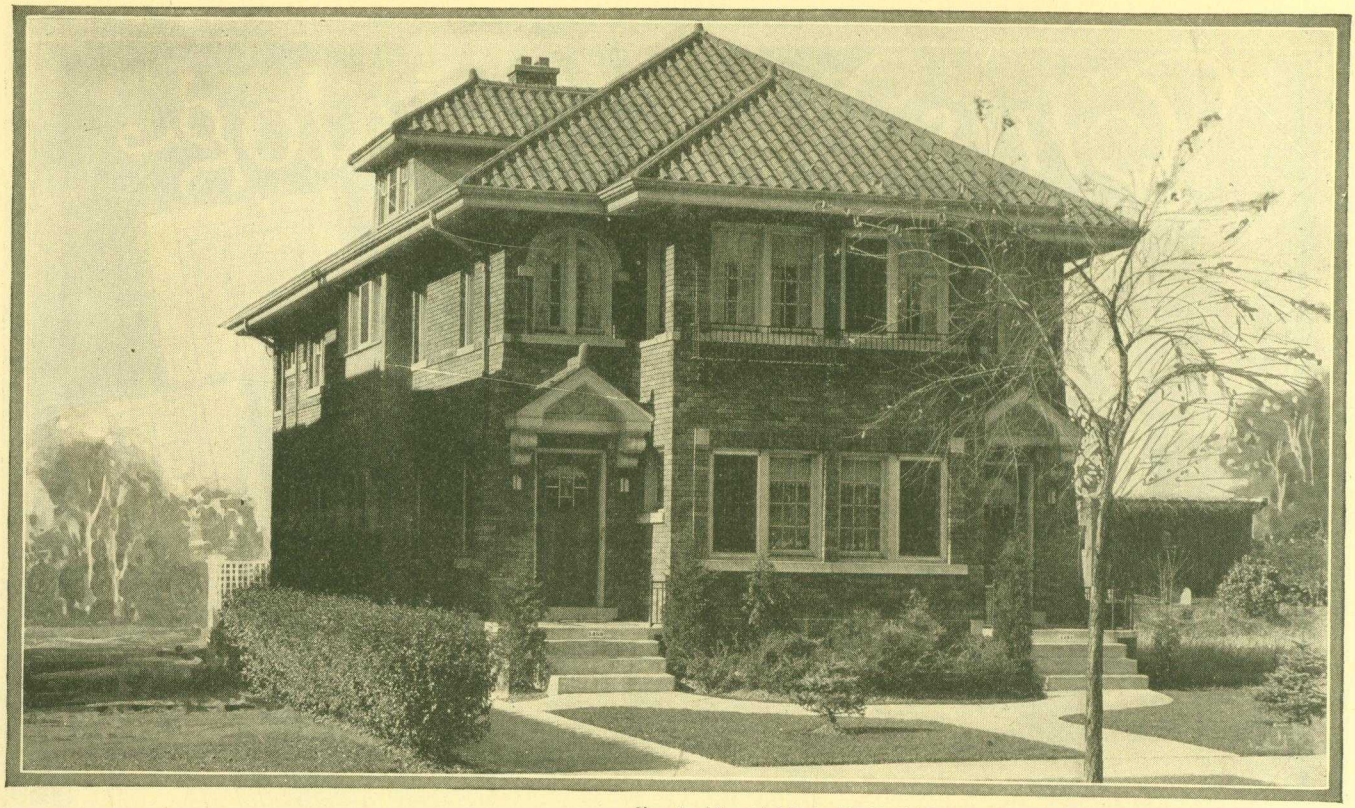
MORTON MANUFACTURING COMPANY CHICAGO U.S.A. MORTON MADE TRADE MARK

*Name*_____

*Address*_____

*City*_____ *State*_____

Please check business or profession:
Architect____ Builder____ Contractor____ Realtor____ Home Builder____

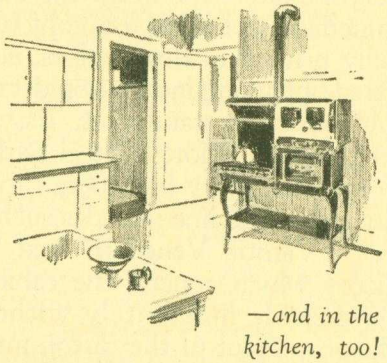


Sheet Steel Spanish Mission Tile Roofed Duplex House at 1489 Downer Avenue, Milwaukee, Wis.

Secure *the* Advantages

of Sheet Steel *for your Spanish Mission Tile Roof*

Pressed into Spanish Mission tiles, Sheet Steel provides strength with light weight—an important consideration from the standpoint of construction cost. It presents the same beauty as clay mission tiles. It is safe from fire or lightning damage and from breakage. No cracking or spalling. It is economical to buy and to maintain. Further, it permits of a change of colors when desirable, by the mere expedient of painting.



—and in the kitchen, too!

For particulars relative to steel Spanish Mission Tile or any other roofing form, write the SHEET STEEL TRADE EXTENSION COMMITTEE, OLIVER BLDG., PITTSBURGH, PENNA.

SHEET STEEL

"Throughout the House"

for STRENGTH SAFETY BEAUTY ECONOMY

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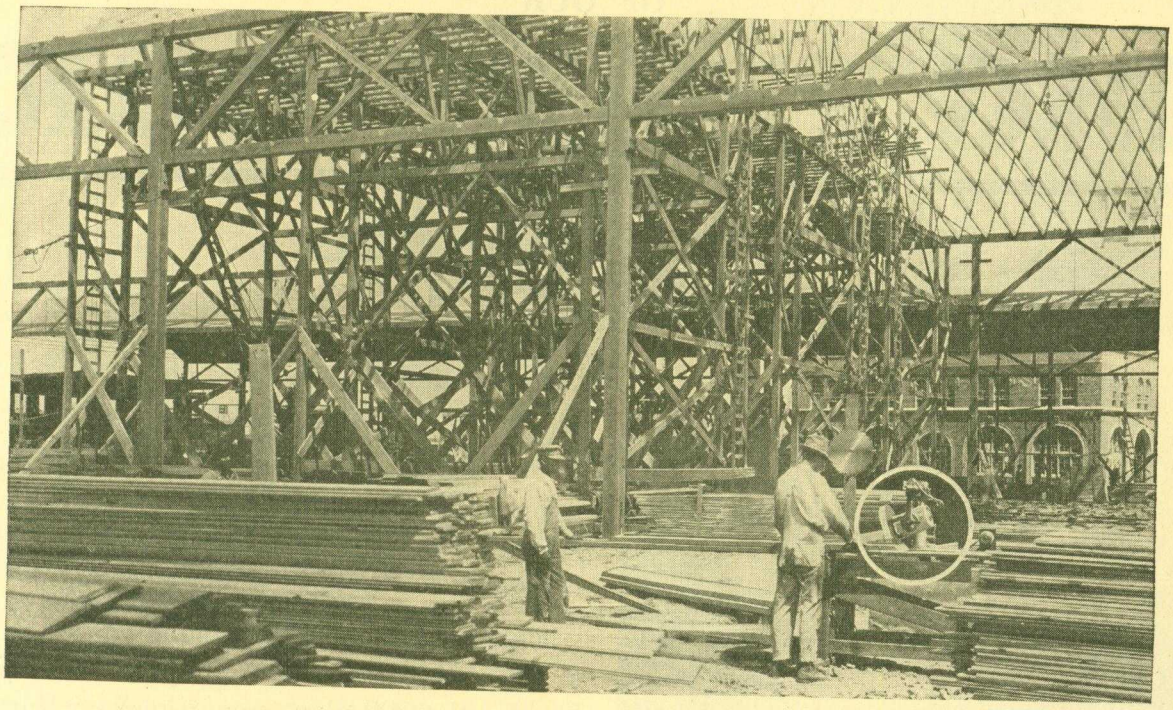
Where the Next Democratic Presidential Candidate Will be Nominated—



At Houston, Texas, the home of this year's Democratic National Convention, three DeWalt Wonder Workers are working hard to get the tremendous hall done on time.

In this type of construction there is necessarily an enormous amount of wood to be cut—ripping, cross-cutting, beveling, mitering and what not. That these DeWalts are doing a first-class job is evidenced by extracts from letters written by—

UNIVERSAL CONSTRUCTION CO.,
Houston, Texas.

"We are using one of your Model D DeWalt Machines on our Democratic National Convention Hall job and it is proving entirely satisfactory in every way. As we have over five hundred thousand feet B. M. of lumber in this job, and the greater portion being 2 inch and over, we feel that the saw will more than pay for itself on this job."

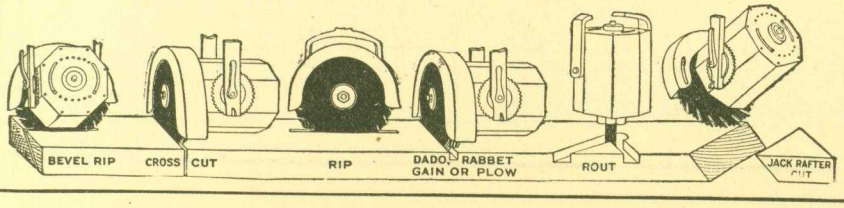
LAMELLA TRUSSLESS ROOF CO.,
Houston, Texas.

"Last year we purchased from you one of your DeWalt Wood Worker saws and used it on several of our jobs. This year when we were awarded contract for constructing our Lamella roof construction for the Democratic National Convention Hall, this city, we purchased another one of your saws and wish to say that both of these machines have given us the very best of satisfaction.

"We consider that these machines paid for themselves in the saving of labor costs on the first large jobs where they were used."

These are merely typical examples of how DeWalts are cutting costs for builders and contractors—both large and small—in all parts of the country.
Ask for further particulars and for a demonstration on your job.

DEWALT
Wonder Worker
The Economy Wood Worker



DeWalt Products Co.,
663 New Holland Ave., Leola, Pa.
I'd like to know how the DeWalt will save time and money on our job.

*Your Name*_____

*Firm Name*_____

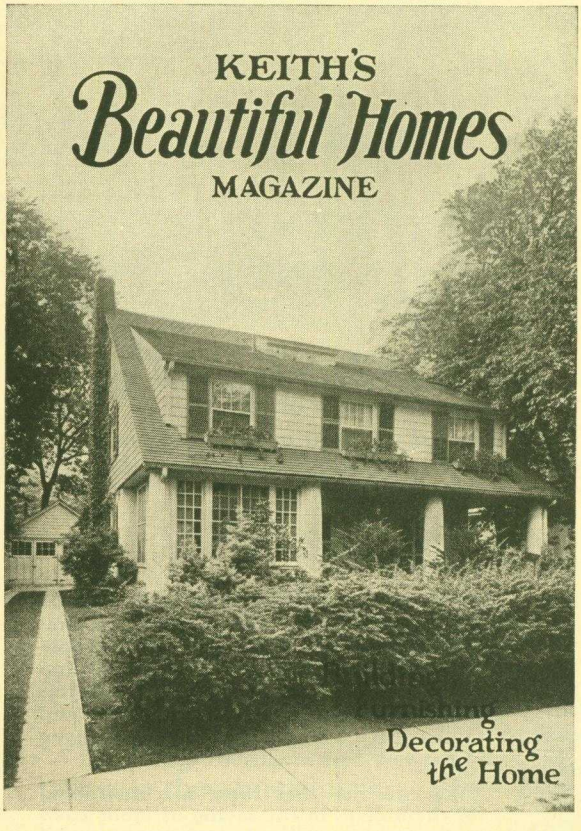
*Address*_____

Special Contractor's Edition

OF OUR

BIG PLAN BOOK

WITH EMBOSSED LEATHERETTE COVER



is now offered the building trade at a reduced price.

The 200 homes shown in this book with floor plans and complete descriptions, have actually been built and therefore tested for economy, convenience and good design.

This book is a special deluxe edition in a stiff board leatherette binding. It contains besides the 200 plans, many practical articles on materials and planning the home, making up a splendid book of 278 pages.

This edition may now be obtained with Keith's Beautiful Homes monthly magazine for the special price of $2.00 postpaid.

Beautiful Homes magazine is the same page size as American Builder. In the year it publishes over 100 plans of Beautiful Homes of moderate cost and just the type and style you will find most persons will want to build.

This liberal offer brings you twelve numbers of this well known magazine and a copy of the big plan book, a total of 300 plans, all postpaid, for $2.00.

MAIL TODAY

KEITH'S BEAUTIFUL HOMES MAGAZINE
100 North 7th St., Minneapolis, Minn.

Gentlemen:—

Send me a copy of Keith's leatherette bound edition of **Beautiful Homes Plan Book and Keith's Beautiful Homes Magazine** for one year for which $2.00 is enclosed.

*Name*_____

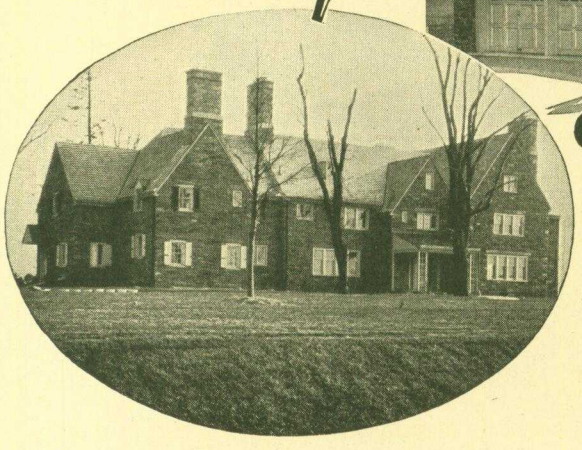
*Address*_____

*City*_____ *State*_____

A.B. 5-28

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

ARTISTIC~enough *for the finest dwelling*



RUGGED~enough *for the busiest garage!*

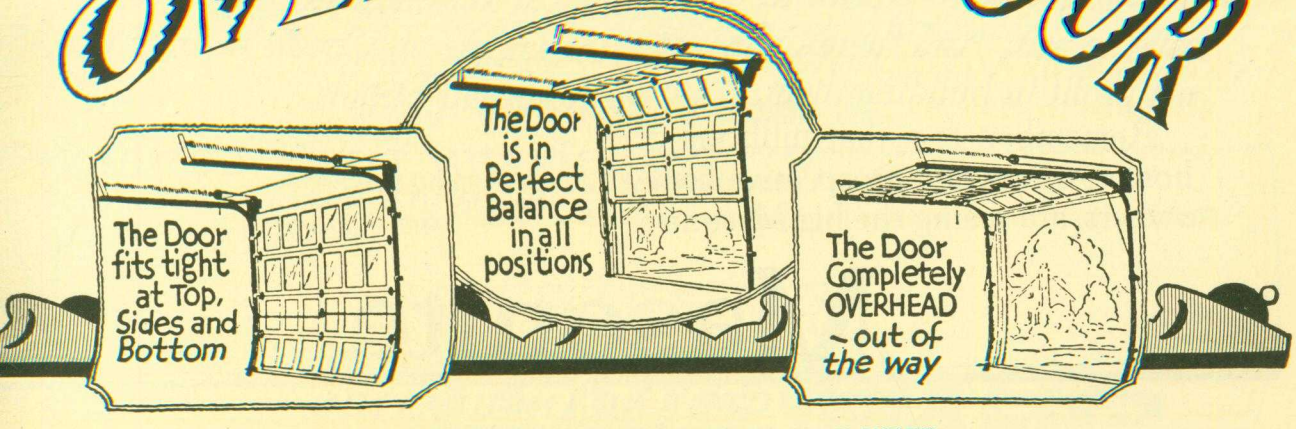
ARTISTIC—Yes! The "Overhead Door" embodies all the desirable features that give the "finishing touch" to homes of quality and beauty. A handsome accessory that will blend with any style of architecture and reflect the quality of its performance.

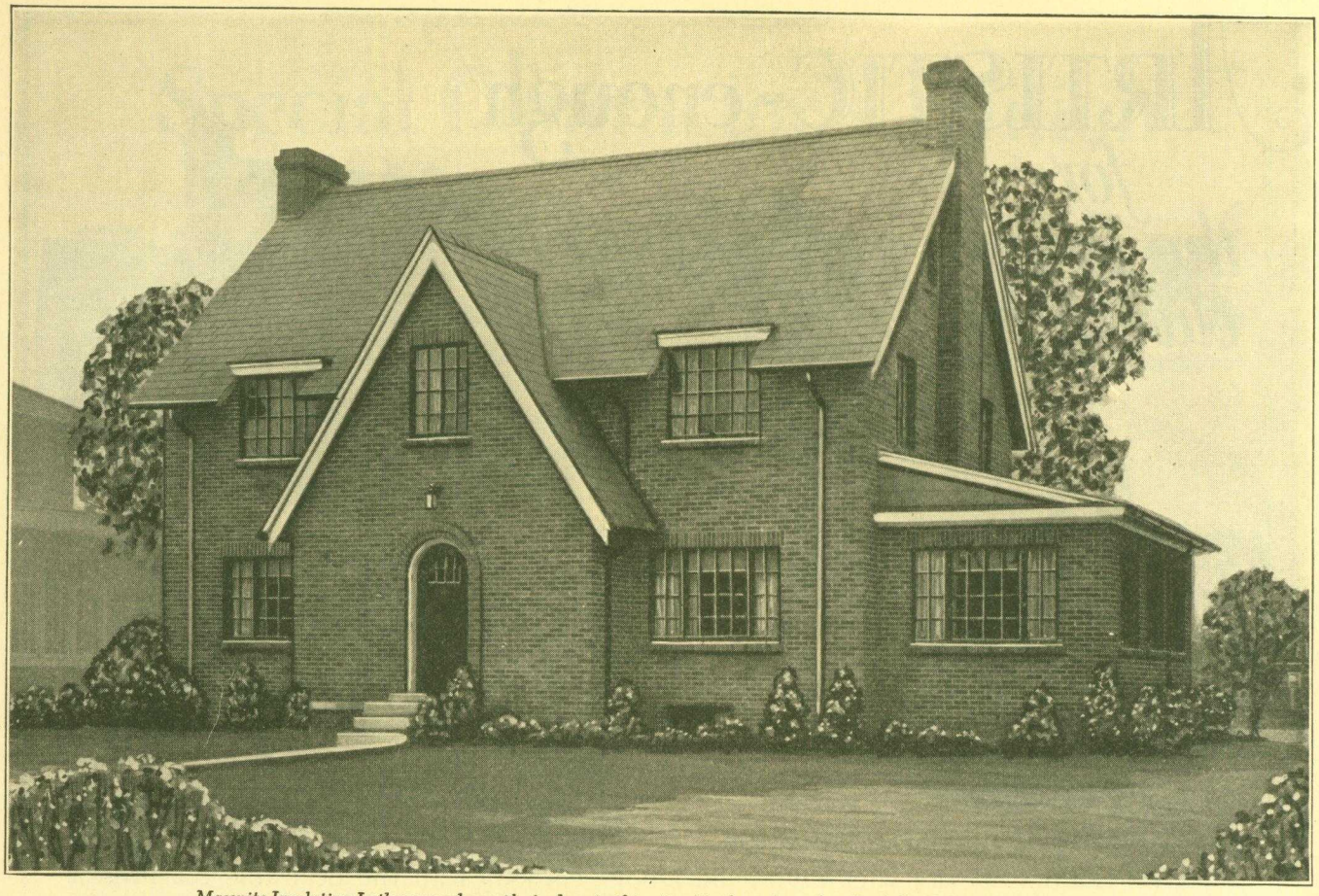
Rugged—Certainly! "Overhead Doors" are built to weather the hardest wear and give dependable service under the most abusive usage. The busiest garage will benefit the most from the "Overhead Door" because of the nature of its operation—just one door that pushes UP and out of the way.

OVERHEAD DOOR CORPORATION

5-1003 W. KICKAPOO ST. **HARTFORD CITY, INDIANA**

The "OVERHEAD DOOR"





Masonite Insulating Lath was used as a plaster base in this attractive home located in South Bend, Indiana. Owner, Mrs. Caroline C. McNamara. Architect, Russell H. Stapp. Contractors and Builders, Whitcomb & Keller Real Estate Builders

Write for a free sample of this *thermostatic wood*

MORE business and better business for the contractors and builders of America!

That's what Masonite, the Thermostatic Wood is bringing—month after month. Homes insulated and plaster-based with Masonite are easier to sell. And there's a bigger net profit in building them.

Remember, too, that millions of home owners, and prospective home owners, are seeing the big Masonite advertising campaign in leading newspapers and magazines.

And also note that we are ready to supply you with free job signs and direct mail campaigns.

Don't wait any longer to get your share of Masonite prosperity. Write for sample and book of Specifications and Details.

MASON FIBRE COMPANY
Dept. 158, 111 W. Washington St., Chicago, Ill.
Mills: Laurel, Mississippi

Masonite
THERMOSTATIC WOOD FOR
STRUCTURAL INSULATION
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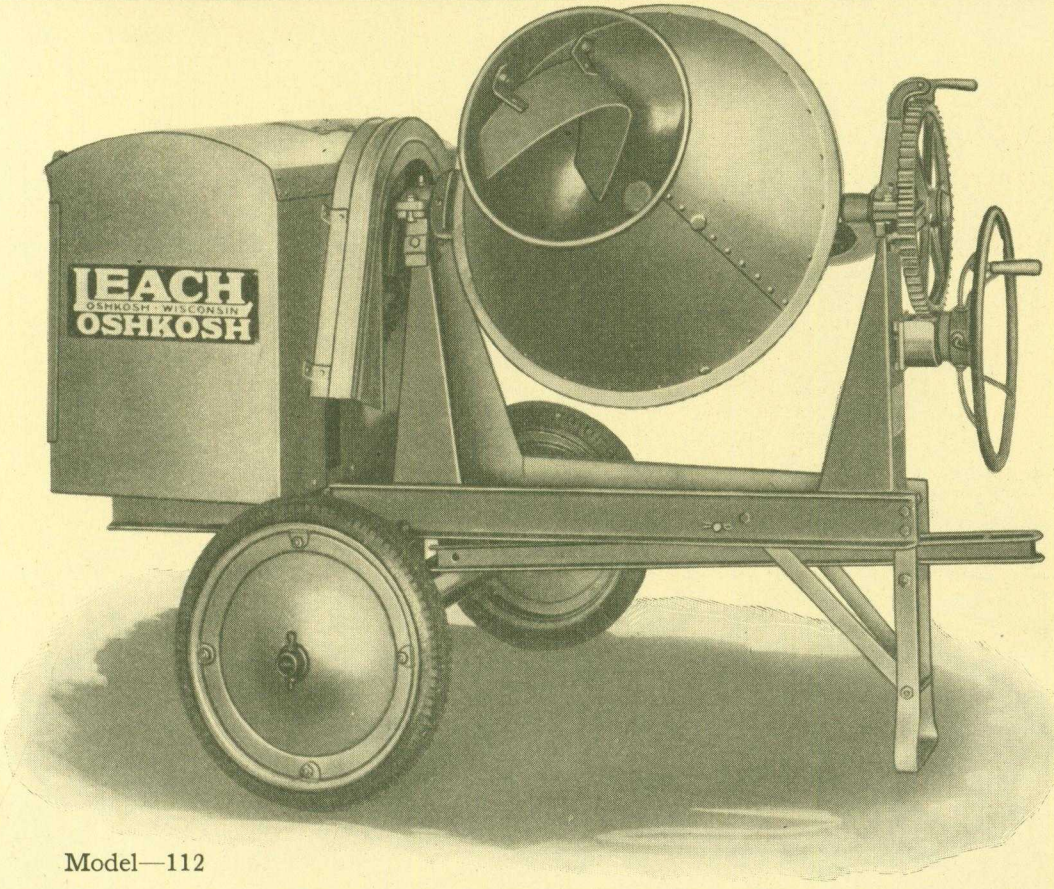

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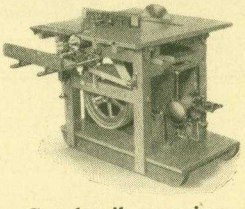

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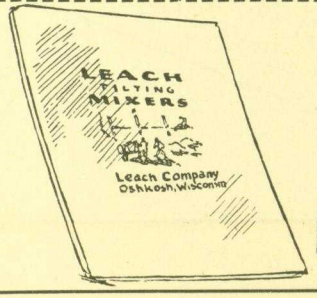

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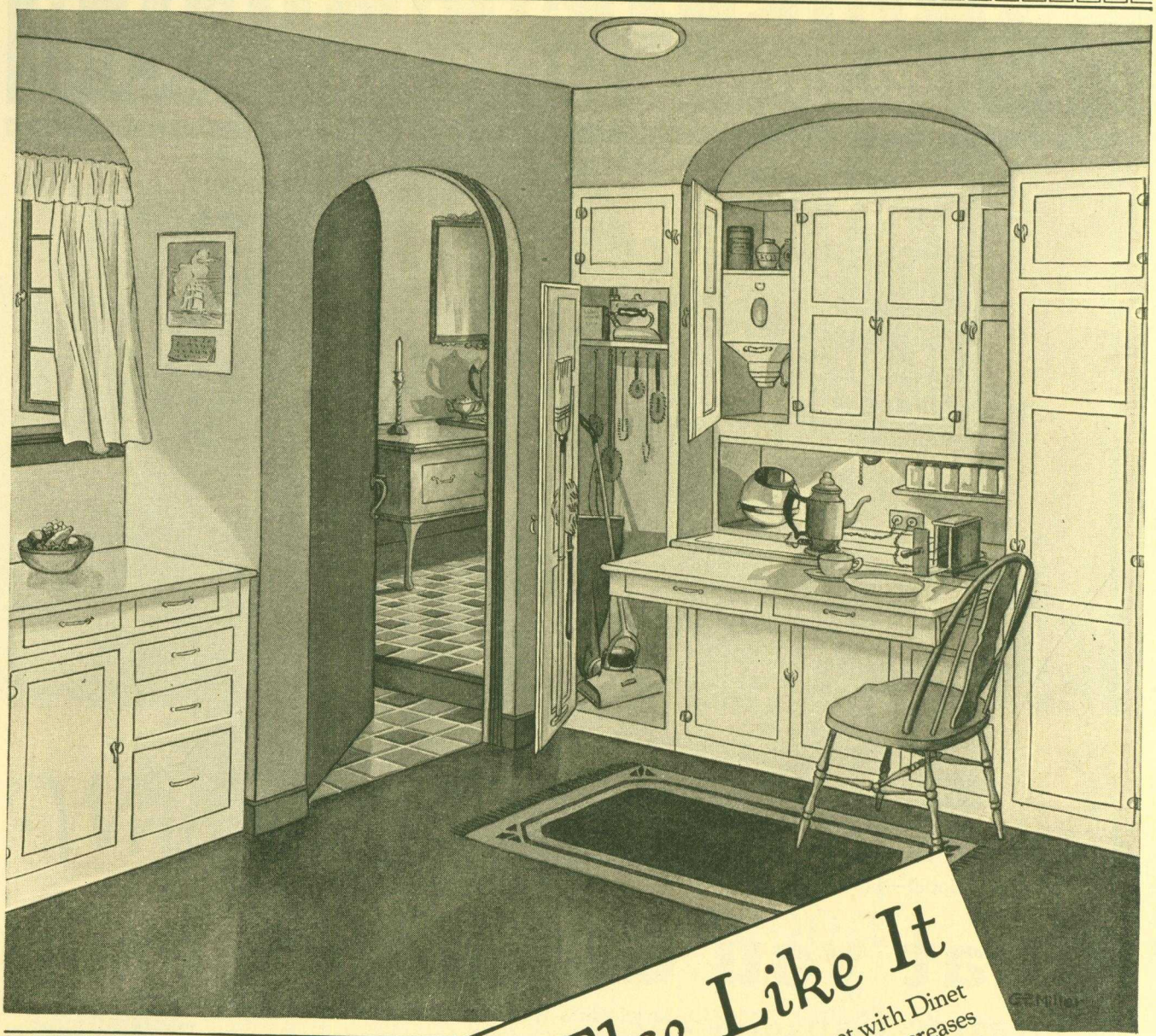

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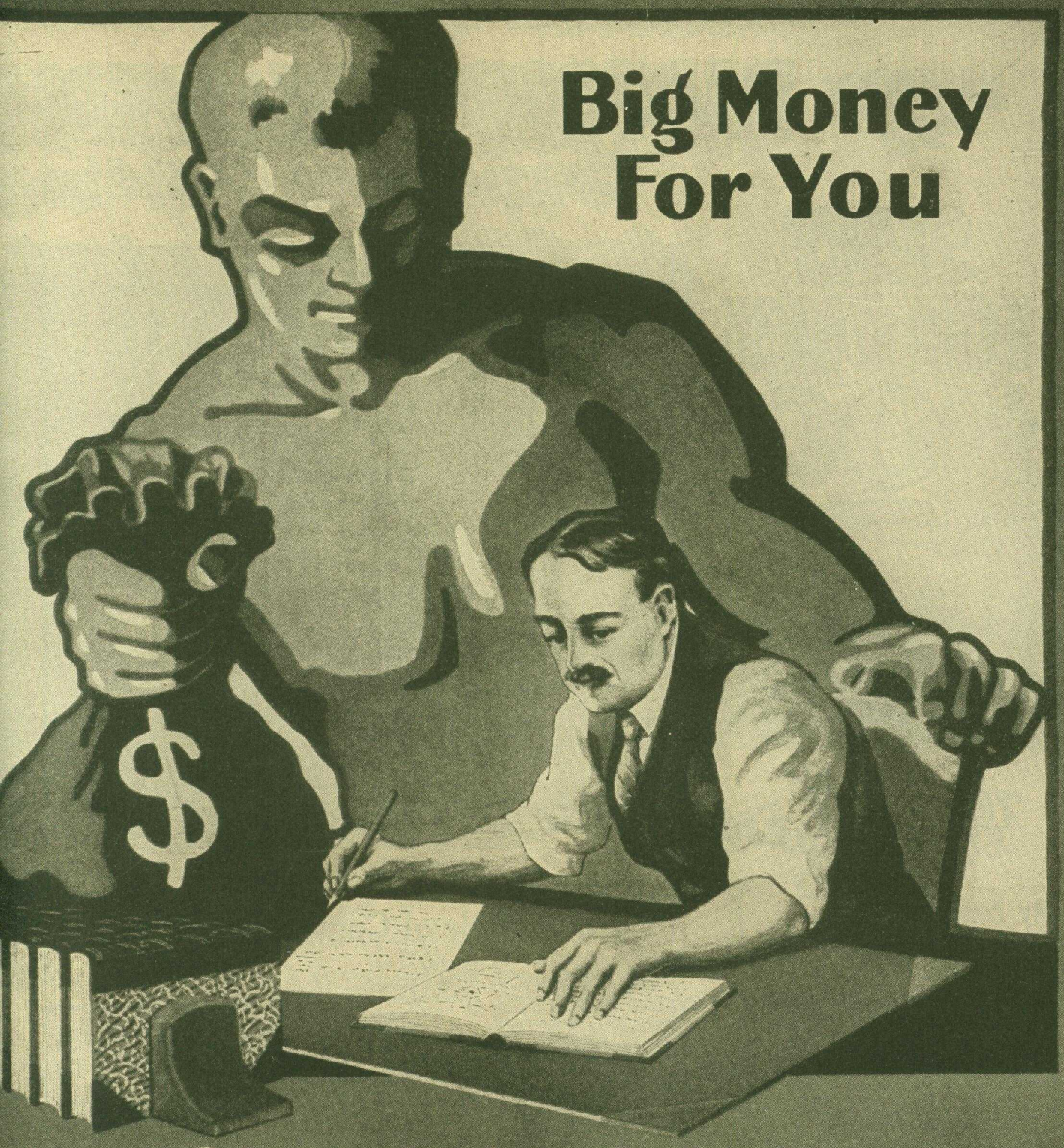

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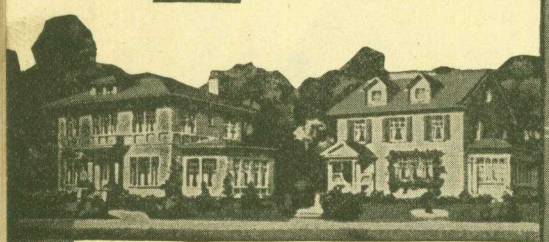

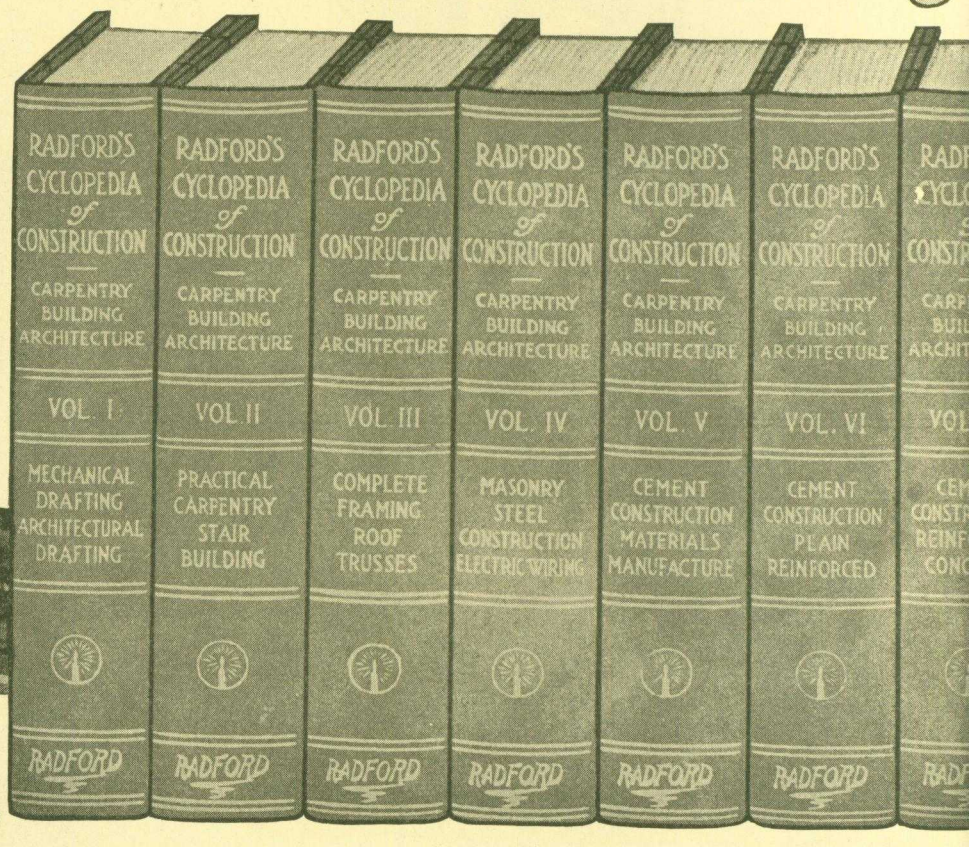

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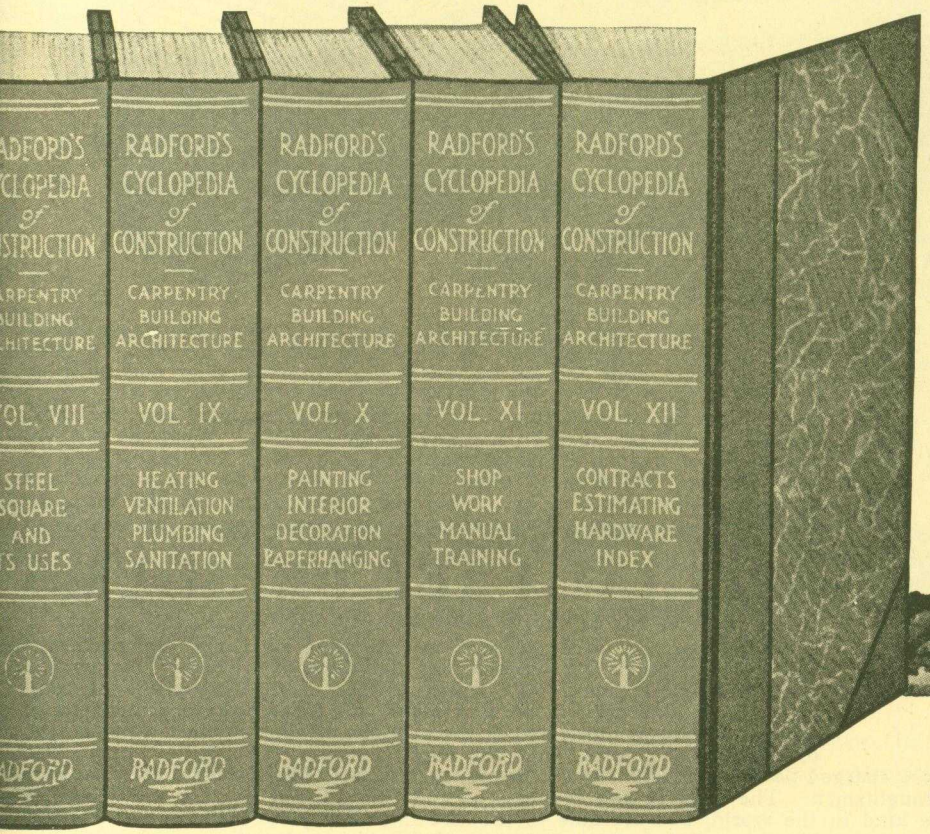

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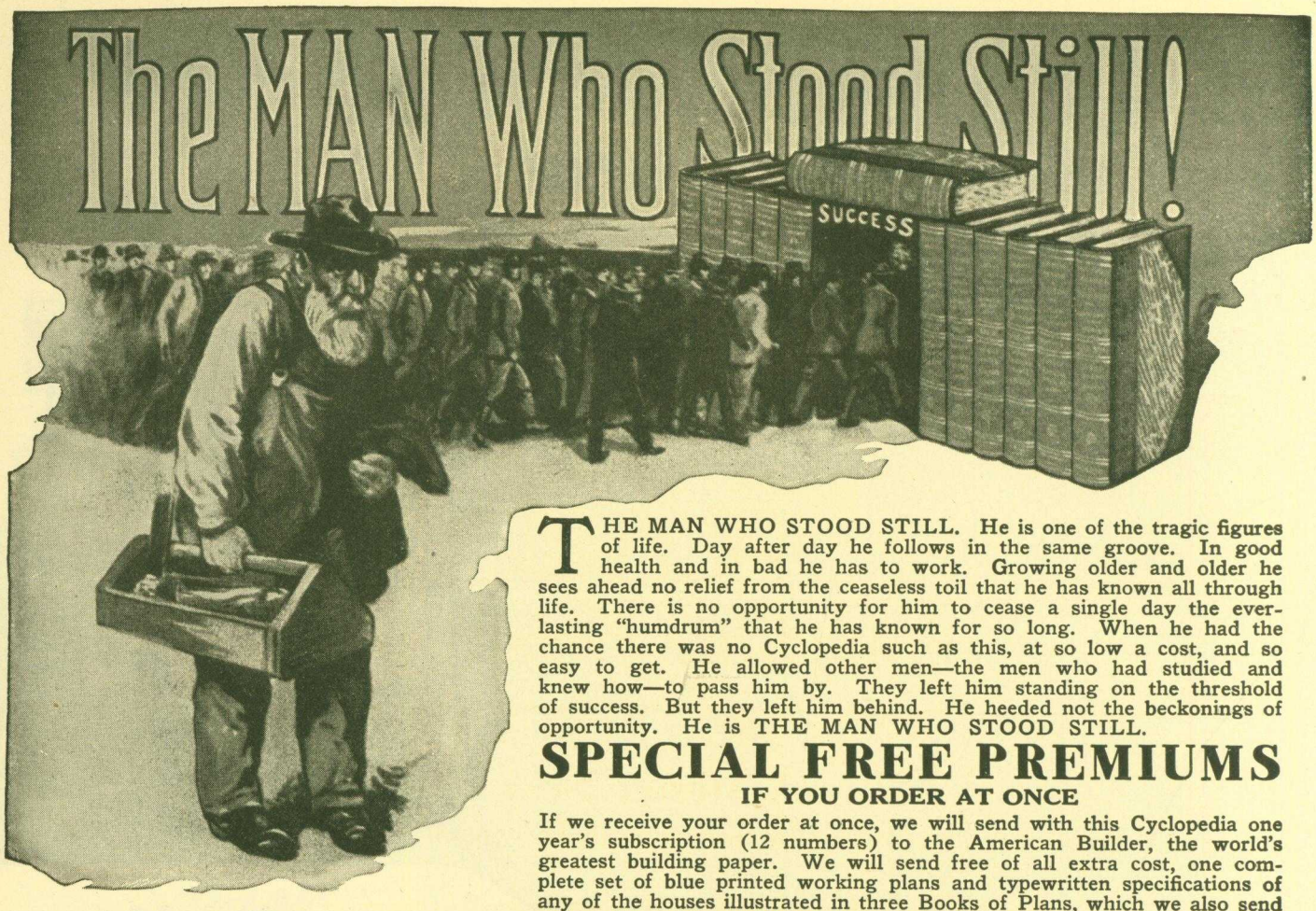

THE MAN WHO STOOD STILL. He is one of the tragic figures of life. Day after day he follows in the same groove. In good health and in bad he has to work. Growing older and older he sees ahead no relief from the ceaseless toil that he has known all through life. There is no opportunity for him to cease a single day the everlasting "humdrum" that he has known for so long. When he had the chance there was no Cyclopedia such as this, at so low a cost, and so easy to get. He allowed other men—the men who had studied and knew how—to pass him by. They left him standing on the threshold of success. But they left him behind. He heeded not the beckonings of opportunity. He is THE MAN WHO STOOD STILL.

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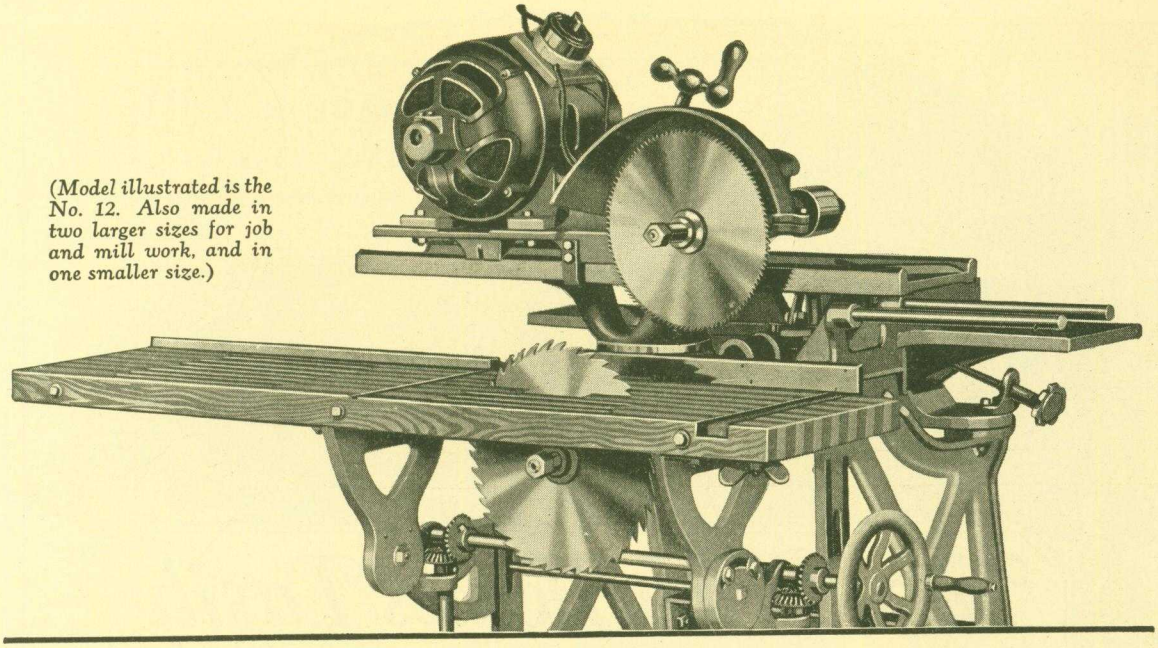

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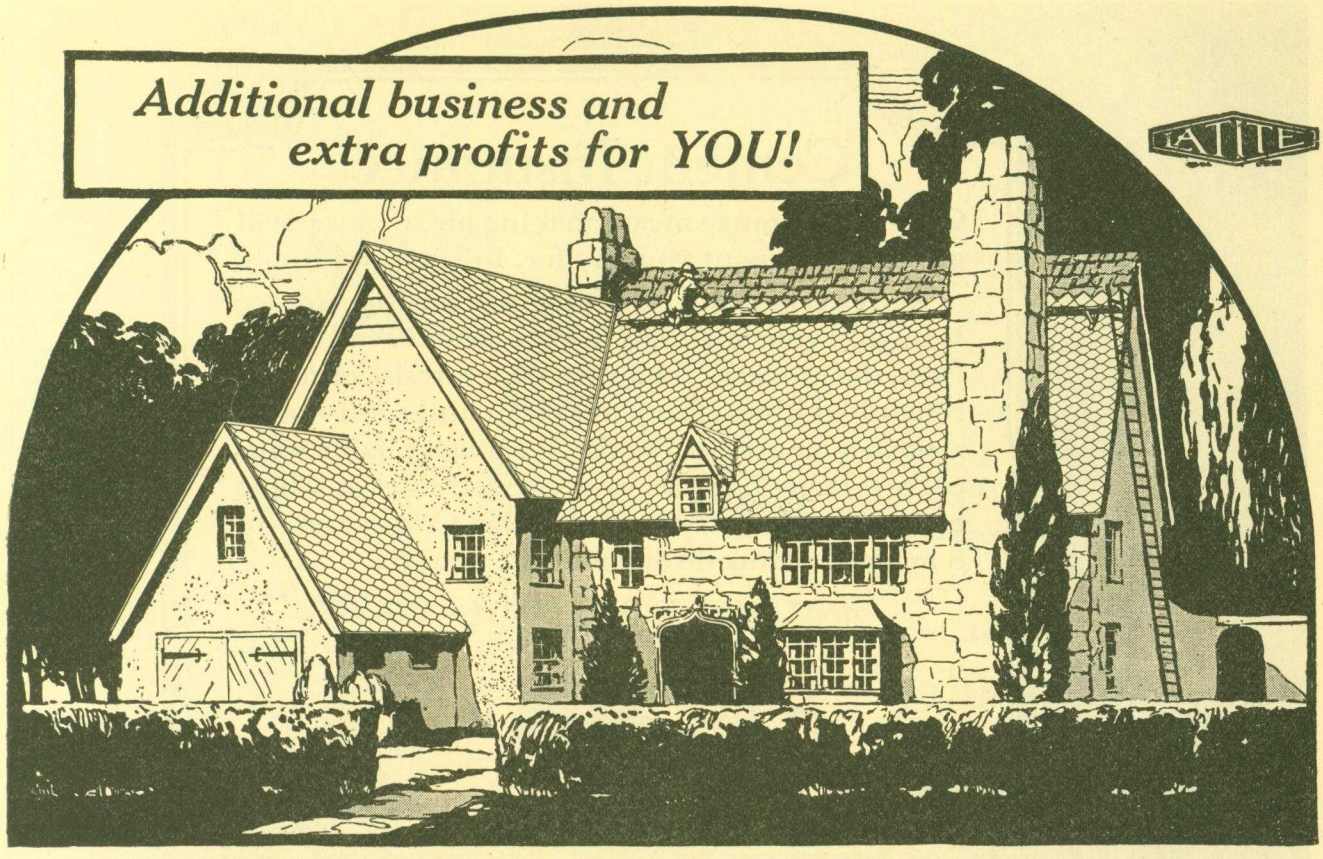

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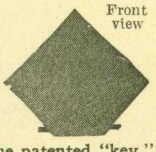

The patented "key," invisible on the completed roof, locks each Genasco Latite Shingle tightly to those underneath.

The turned-under corner holding the "key" makes a double-thick butt that adds distinction to a Genasco Latite roof.

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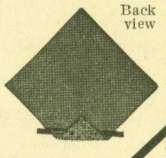

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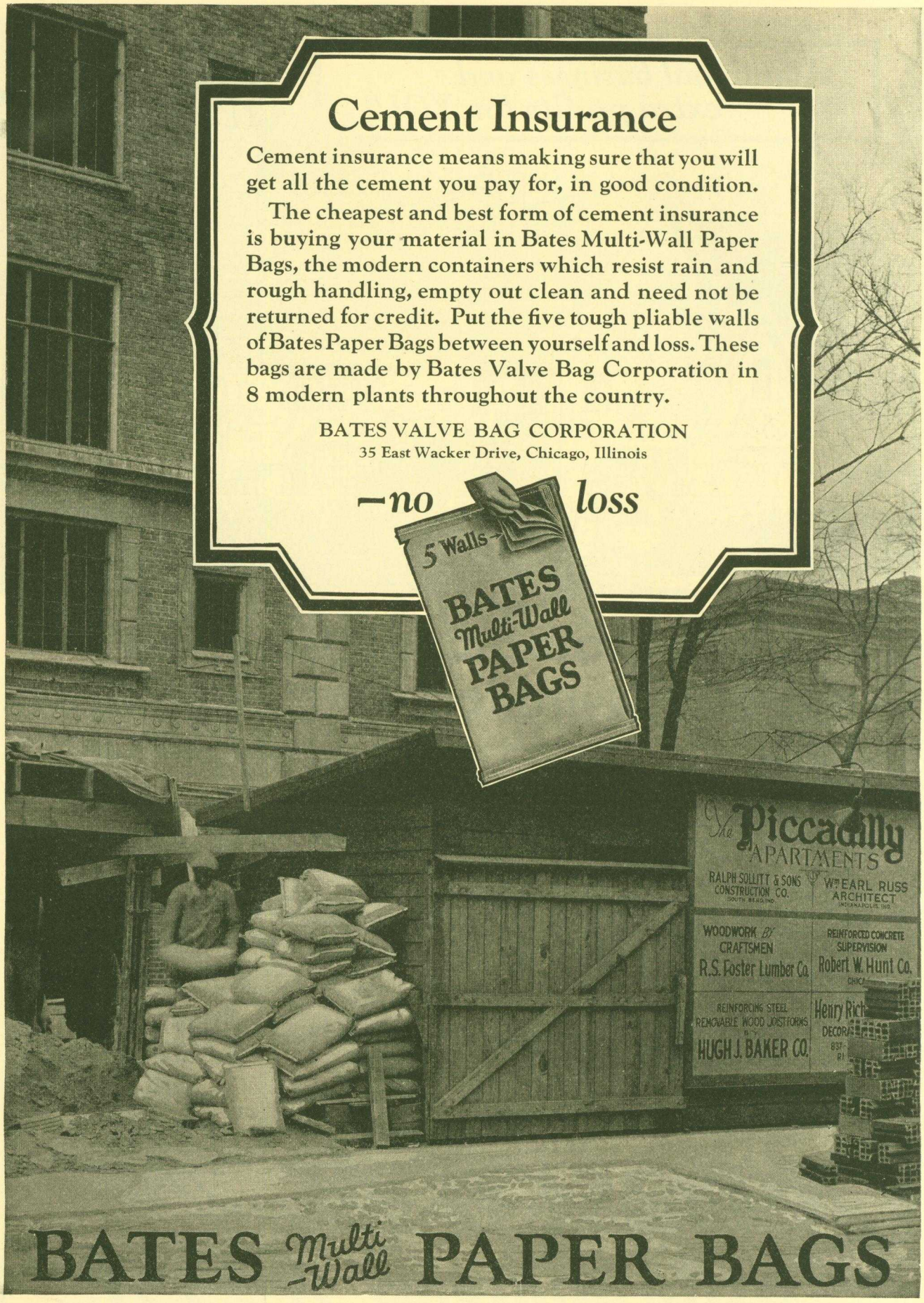

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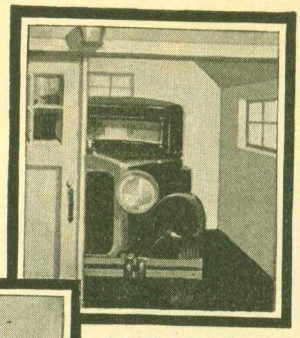

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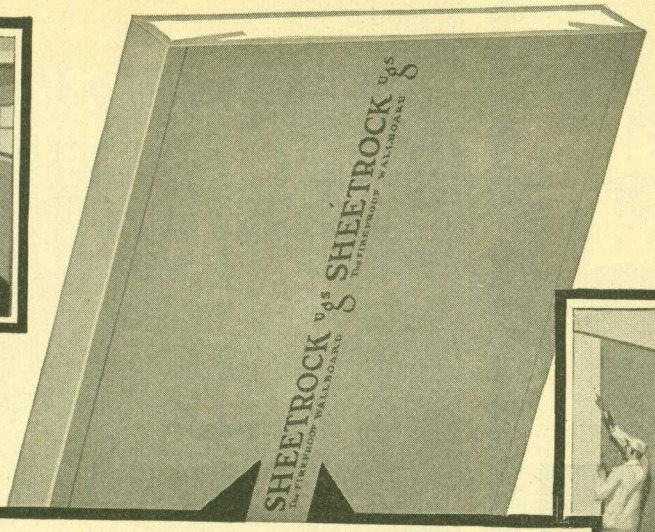

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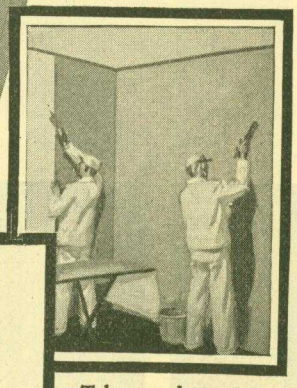

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***FIREPROOF . . .* INSULATING**

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UNITED STATES GYPSUM CO.
General Offices: Dept. 1, 300 W. Adams Street, Chicago, Illinois

Please send me your data on the Sheetrock Reinforced Joint System and other special information on Sheetrock.

Name .....

Address .....

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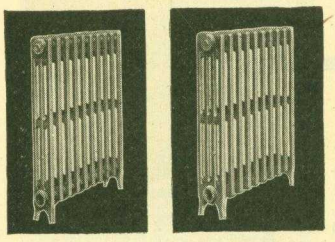
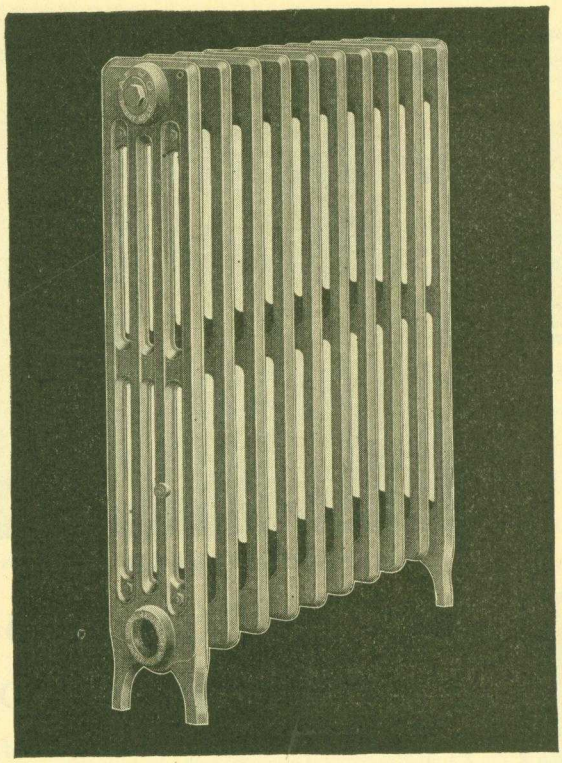
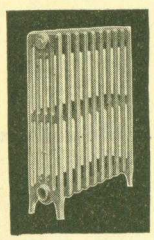


Three Tube Aero Radiator. Graceful, and pleasing, this slender model is particularly adapted to narrow corridors, and rooms where space is at a premium.

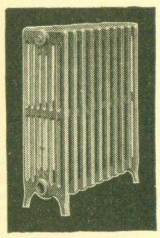
Four Tube Aero Radiator. The slender tubes make it charming and efficient; provide the scientifically correct ratio of air space to heating area.



THE RADIATOR THAT SET NEW STANDARDS~~~



Five Tube Aero Radiator. This model finds its field in all general applications: Homes, schools, apartments, offices and everywhere.



Seven Tube Aero Radiator. A unit with tremendous warming capacity, used where space limitations will not permit a long radiator.

Aero, the National Radiator, was the first to successfully combine beauty and efficiency and revolutionized the cast iron radiator industry. Aero created a new appreciation of what radiators should be. Aero pioneered in standardization, introducing—in four models—a type and style for every application.

For more than six years, Aero, the National Radiator, has led the field consistently. Imitated and followed, today it is the only tube type radiator whose value and dependability have been proven over a period of years in all types of buildings all over the nation. Aero, a National Product, is the National Radiator.

NATIONAL RADIATOR CORPORATION

Ten Plants devoted to National Service through these Branch Offices and Warehouses:

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New York, N. Y.—55 W. 42nd St. Milwaukee, Wis—124-130 Jefferson St.
Philadelphia, Pa.—121 N. Broad St. Pittsburgh, Pa.—1509 Arrott Bldg.
Richmond, Va.—3032 Norfolk St. St. Louis, Mo.—1042 Central Industrial St.
Washington, D. C.—2205 Fifth St., N. E.

AERO

AERO THE NATIONAL RADIATOR

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NATIONAL PRODUCTS

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

YOURS!? Manufacturing Independence With a Plant Like This

Start Small As Lind Did

Five years ago the Lind brothers of Altoona, Pa., started manufacturing Duntile on an investment of $1,750. Recently they refused over $100,000 for their plant. With one company alone, the Independent Oil Co., they have already done business of more than $90,000.

Are you interested in a proposition requiring only limited capital by means of which men have lifted themselves into the $100,000 class in just a few years? Especially when you have such successes to guide you as Lind of Altoona, Frauenfelder of St. Louis, Strandberg and Swanson of Kansas City, Lyons of Norwalk, Conn., and many another among the more than 400 Duntile manufacturers in the country today.

There is probably more data available and more scientific background for the guidance of the Duntile manufacturer than in any other manufacturing enterprise open to the public today. A Duntile plant is a tried and proven proposition. The machinery is exclusive. Production methods are worked out on lines of tested soundness. Marketing the product is based on success, not theory.

This thoroughly tested method of operating **plus** the basic excellence of Duntile as a building unit make Duntile manufacturing a business entirely without comparison. A business in which average men from all walks of life can **and do** make successes that seem amazing.

Would you like to own a manufacturing business worth $100,000 or more? One that you could start with an investment as small as Lind's? If you would, then fill in the coupon below. Somebody is going to make Duntile and supply the building trade in your community—will you act while the opportunity is open?

Send the coupon for our book "Basic Facts."

DUNTILE

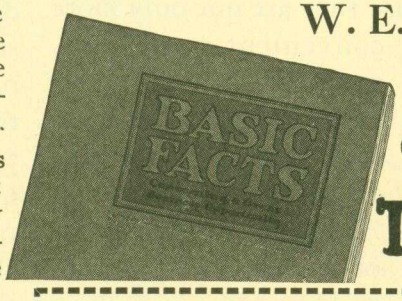
THE PERFECTED ALL-PURPOSE CONCRETE BUILDING UNIT

Working Specifications in "Sweets"

Duntile Beauty—40 wonderful colorings and a rich, lustrous texture. Duntile Strength—certified in laboratory tests and hundreds of well-known buildings from coast to coast. Duntile Economy—proven literally amazing by the records of leading builders everywhere.

Facts and figures back up every claim that Duntile builds better buildings—and builds them for less. There isn't a type of structure, from cottage to skyscraper, that hasn't been built of Duntile at a saving in cost and a gain in beauty, strength and permanence. How Duntile makes possible the best masonry construction at cost of frame should be a part of the working knowledge of every builder who wants to lead in his community. The coupon will bring you the complete story. Use it now.

W. E. Dunn Mfg. Co.
415 West 23rd Street
Holland, Michigan



This BOOK TELLS *HOW*

W. E. DUNN MFG. CO., 5-'28
415 W. 23rd St., Holland, Mich.

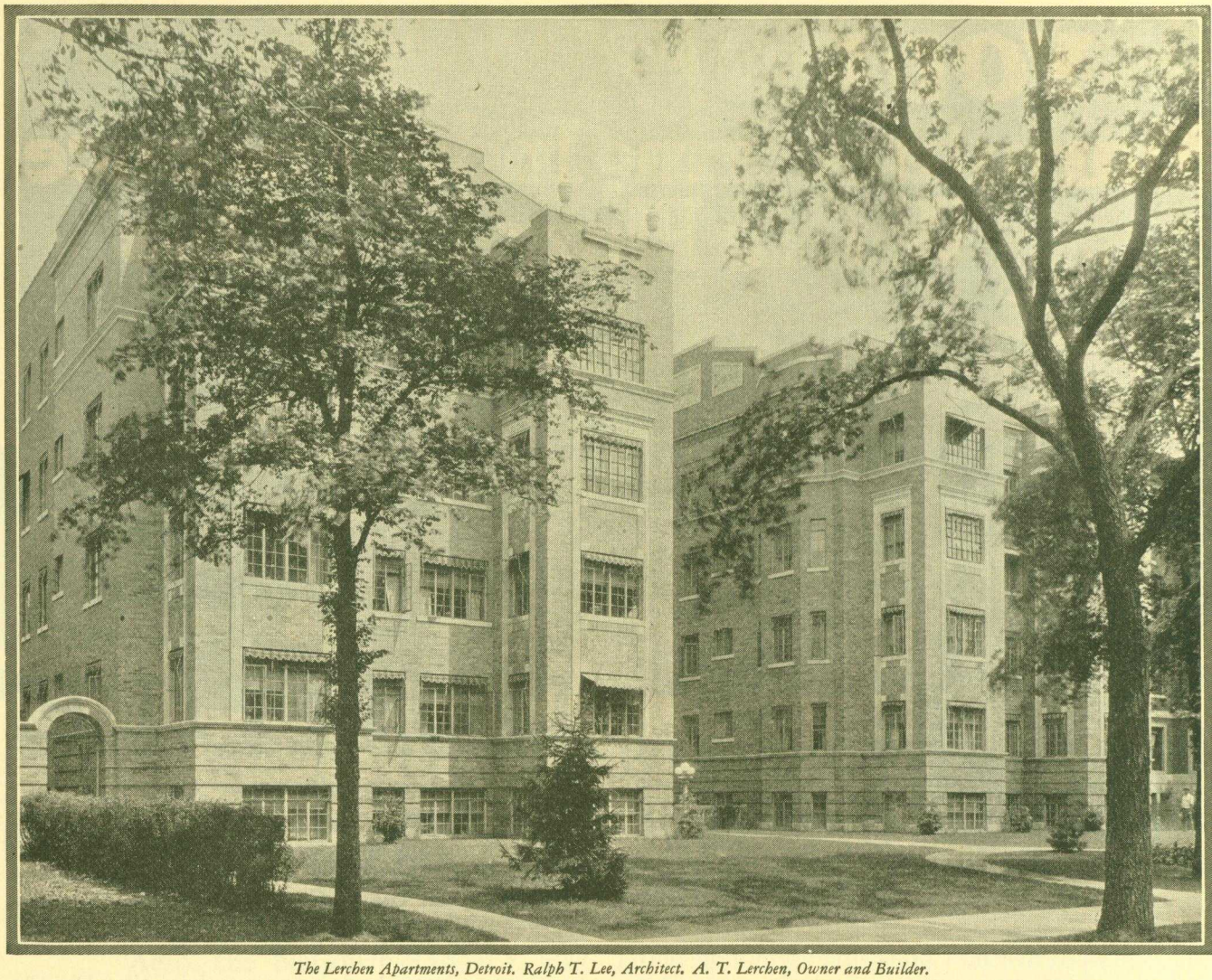
☐ Show me through your book "Basic Facts" how I can win manufacturing independence by supplying Duntile in my community the same as Lind did in Altoona, Pa. Show me how I can manufacture **DUNTILE** in a plant of my own at a profit of 30 to 60 percent.

☐ Show me how I can build permanent masonry walls at cost of frame, and make more money for myself.

Name.....

City.....State.....

Street Address.....



The Lerchen Apartments, Detroit. Ralph T. Lee, Architect. A. T. Lerchen, Owner and Builder.

ADD MODERN STYLE AND VALUE TO YOUR PROPERTIES WITH LUPTON STEEL WINDOWS

JUST THINK how much beauty and style these outswinging Lupton Steel Casement Windows will add to your apartment building!

People find these modern windows are pleasant to live with because they are not only more convenient to operate, more weather-tight, and easier to keep clean, but they give a distinctive charm to every room. And they also add a note of modern style to your building, thereby making it more attractive to buyers and tenants.

Here is a well-known architect's home completely equipped with Lupton Steel Windows which listed at $569

Leading investment builders in every residence community are installing Lupton Windows of copper-steel as an up-to-the-minute sales feature. Inform yourself now on the low cost, economical installation and high investment value of Lupton Casements and Basement Windows. Write for a free copy of our illustrated Catalogue C-217 which gives you the practical details.

The builder of this development house found Lupton Steel Windows a paying investment at a list cost of $300

DAVID LUPTON'S SONS CO.
Branches in All

2203 E. Allegheny Avenue, Philadelphia
Principal Cities

Lupton STEEL Windows

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Genuine RUBEROID ROOFS *known* for beauty and service

HOME seekers *know* the years of service a *Genuine* Ruberoid Shingle Roof will give. Their fire-resisting qualities have a universal appeal. Home builders know that attractive styles and colors frequently clinch the sale.

Regardless of the type of homes you build, there is a *Genuine* Ruberoid Roof in the style, weight and color that you desire. Mail the coupon and secure samples of *Genuine* Ruberoid Shingles with descriptive literature.

ADVERTISING *that reaches Six million families*

MONTH after month during 1928 over six million families are reading about the importance of selecting *Genuine* Ruberoid Shingles and Roofings.

In your community many of these families will build, remodel or re-roof. Safeguard their investment and your reputation for quality products. Recommend *Genuine* Ruberoid Shingles or Roofings.

The RUBEROID Co., (Dept. 3),
95 Madison Avenue, New York, N. Y.

Please send samples and literature of the following *Genuine* Ruberoid Products:

Ruberoid Strip-shingles
☐ Octagonal ☐ Square ☐ Hexagonal

Ruberoid Unit-shingles
☐ Massive ☐ Standard ☐ Lock-down

Ruberoid Roll-roofing
☐ Slate-surfaced ☐ Smooth-surfaced

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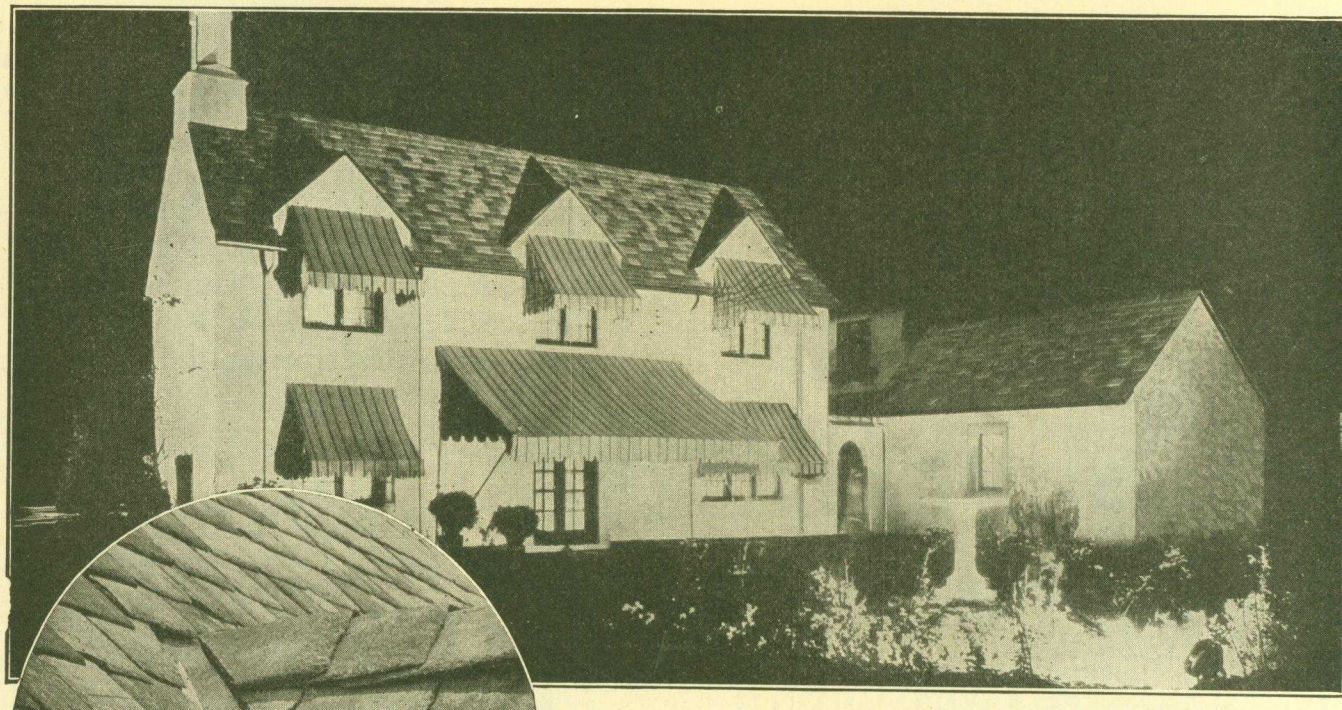
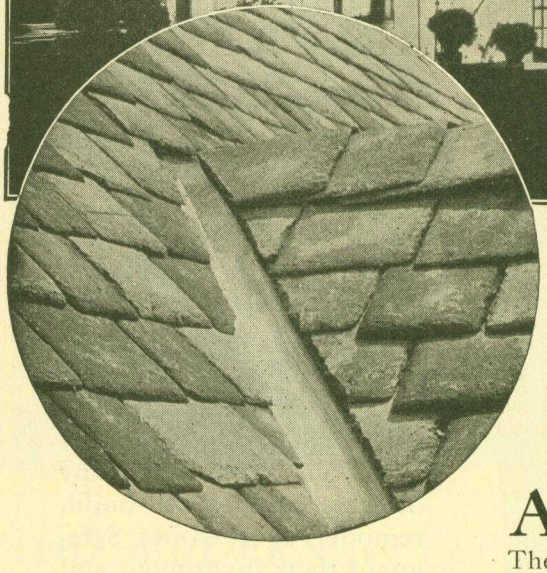
The RUBEROID Co.
Chicago New York Boston

"THEY ARE VERY GOOD LOOKING"





TAPERED

"English Thatch"
Ambler Asbestos Shingles

The Ideal, Fireproof, Weatherproof, Roofing were selected by the Lehigh Portland Cement Company for the roof of their Prize House (illustrated above), built at Kansas City, Missouri, photographed at night by the aid of a flood light. The enlarged insert of an actual close up photograph shows the definite charm and distinctive effect of this unique product, the **"English Thatch"** in random widths, irregular courses and rough texture that completely eliminated hard and fast lines and sets a new roofing standard giving a novel beauty to the modern home and an added degree of serviceability to a roof.

First of all, Tapered Ambler Asbestos Shingles have the taper of the old wooden shingles. They come in random widths 6 in. to 14 in., ⅛ .in thick at the top and ½ in. at butt and 20 inches long. They are ***strong, rigid shingles,*** not paper or rag felt, never curl or warp, not affected by the blasts of winter, the heavy rains of spring and the blazing heat of summer, year in and year out, for they are made of Asbestos and Hydraulic Cement—Nature's imperishable materials.

They are made in a variety of non-fading colors:—Green, Red, Brown, Gray, etc.

FIREPROOF

Tapered Ambler Asbestos Shingles are absolutely fireproof, not merely "fire-resistant." Ask your fire insurance agent what the difference is. He will tell you the difference and show you the saving in rates—a matter of serious consideration over a term of years and years. It will pay you to write us now for complete information covering these superior shingles.

Made by the AMBLER ASBESTOS COMPANY, at Asbestos, Penna., and sold by the

ASBESTOS SHINGLE, SLATE & SHEATHING CO.

AMBLER, PENNA.

or Branch Offices in large Cities

"ASBESTOS CANNOT BURN"

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

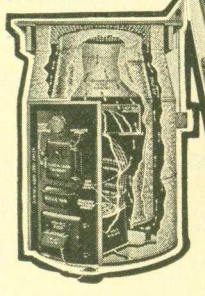
PLUMBING and HEATING

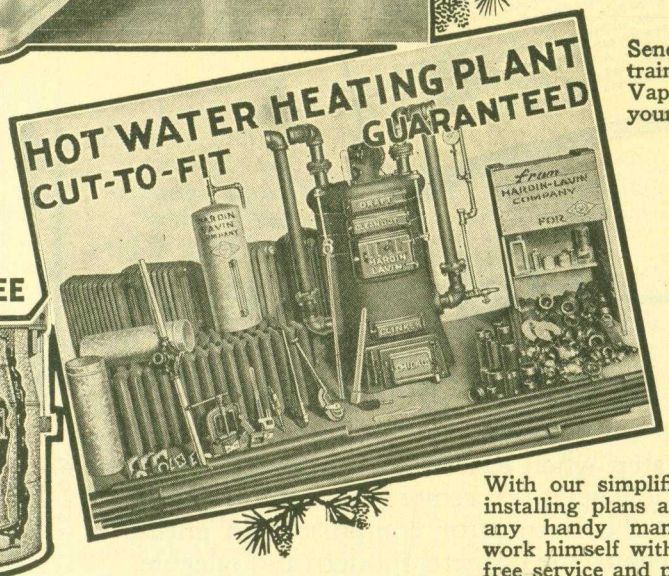
INSTALL Your Own

SAVE 1/2 BY OUR NEW EASY METHOD

HARDIN-LAVIN GUARANTEED QUALITY

OUR MILLION DOLLAR PLANTS BEHIND OUR GUARANTEE





BUILDERS SEND PLANS FOR FREE ESTIMATE

Send plan or pencil sketch of your building and our trained Engineers will design a Hot Water, Steam, Vapor, Warm Air or Plumbing Outfit to exactly meet your requirements. This service is FREE.

OUR CUT-TO-FIT NEW EASY METHOD

We are familiar with all local ordinances everywhere and from your sketch or plan, with our Cut-to-Fit New Easy Method, we will build your system to conform with your local sanitary laws. Our products from the smallest fitting to a complete outfit have durability, beauty and ease of installation built in through and through.

We Show You How To Do the Work

With our simplified and correct installing plans and instructions, any handy man can do the work himself with the aid of our free service and planning department. TOOLS LOANED FREE.

We keep in touch with you from time to time until your job is finished. Even if you employ a practical plumber or steamfitter the heavy labor and needless material saved will surprise you.

YOU WILL SAVE NEEDLESS MATERIAL and HEAVY LABOR

We carry absolutely everything in Highest Grade New Easy Method Plumbing and Heating—BATHROOM OUTFITS, SINKS, LAUNDRY TUBS, WATER SOFTENERS, WATER HEATERS, SEPTIC TANKS, WATER SUPPLY SYSTEMS, PIPE, FITTINGS, VALVES, ETC. HOT WATER, STEAM, VAPOR, AND WARM AIR HEATING PLANTS with special builders wholesale prices on everything. WRITE FOR BUILDERS FREE CATALOG TODAY!

FREE CATALOG

Send for Your FREE Copy Today

FULL OF BIG BARGAINS!

We Are In This Business 52 Years

VISIT OUR

Million Dollar Plant

When in Chicago, we will show you through our Big Modern Plant whether you want to buy anything or not. We want you to know us.

BRANCHES
GARY, INDIANA, 1959 Braadway

EST. 1876

Hardin-Lavin Co.

120-30 W. Pershing Road, CHICAGO ILL.

Hardin-Lavin Co., 120-130 W. Pershing Road, Chicago, Illinois.
A.B. 5-28

Gentlemen:
Please send me your free bargain catalog with special Builders' Prices on everything. I am interested in:

- ☐ Hot Water Heating Plants
- ☐ Steam or Vapor Heating Plants
- ☐ Warm Air or Pipeless Heating Plants
- ☐ Water Heaters
- ☐ Water Supply Systems
- ☐ Bathroom Outfits and Sinks
- ☐ Septic Tanks
- ☐ Water Softeners

NAME.....

ADDRESS.....

CITY..... STATE.....

Helps Sell — Helps Rent

Build the Kernerator in Every Home and Apartment

HOMES sell faster and rent faster, when Kernerator-equipped. Here are just a few instances that show what real estate agents think of this feature. Many realtors now make the Kernerator compulsory in entire subdivisions, knowing its effect in keeping the property modern and saleable.

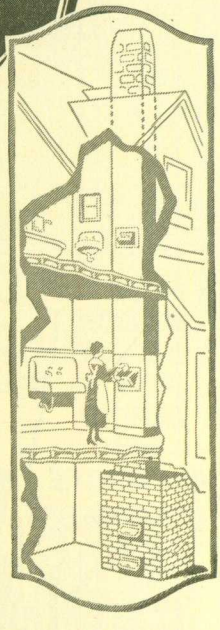
When your prospect is hanging in the balance, think of leading her to the Kernerator's handy hopper door in or near the kitchen! Think of being able to offer:

First—Banishment of the basement rubbish pile—accountable for three out of every four fires in residences and apartments.

Second—Doing away with the unsightly garbage can, the filthy job of cleaning it and the expense of buying and replacing it.

Third—Saving her miles of steps in trips to these nuisances, in every kind of weather.

Fourth—Without expense other than an occasional match, instant disposal of all waste—not only garbage, but sweepings, old magazines, broken crockery and tin cans. Non-combustibles are flame-sterilized for removal with the ashes.



Should Be Built-in
Only rarely can the Kernerator be installed in existing buildings. It should be in the plans. Over 2500 architects and contractors use and recommend it.

Write for complete information and prices or phone your local Kernerator representative. Offices in 89 cities. Data carried in Sweet's 22nd Edition.

KERNER INCINERATOR COMPANY, 753 East Water St., Milwaukee, Wis.

KERNERATOR
REG U.S PAT OFF
THE CHIMNEY-FED INCINERATOR

88

Garbage and Waste Disposal without Leaving the Kitchen

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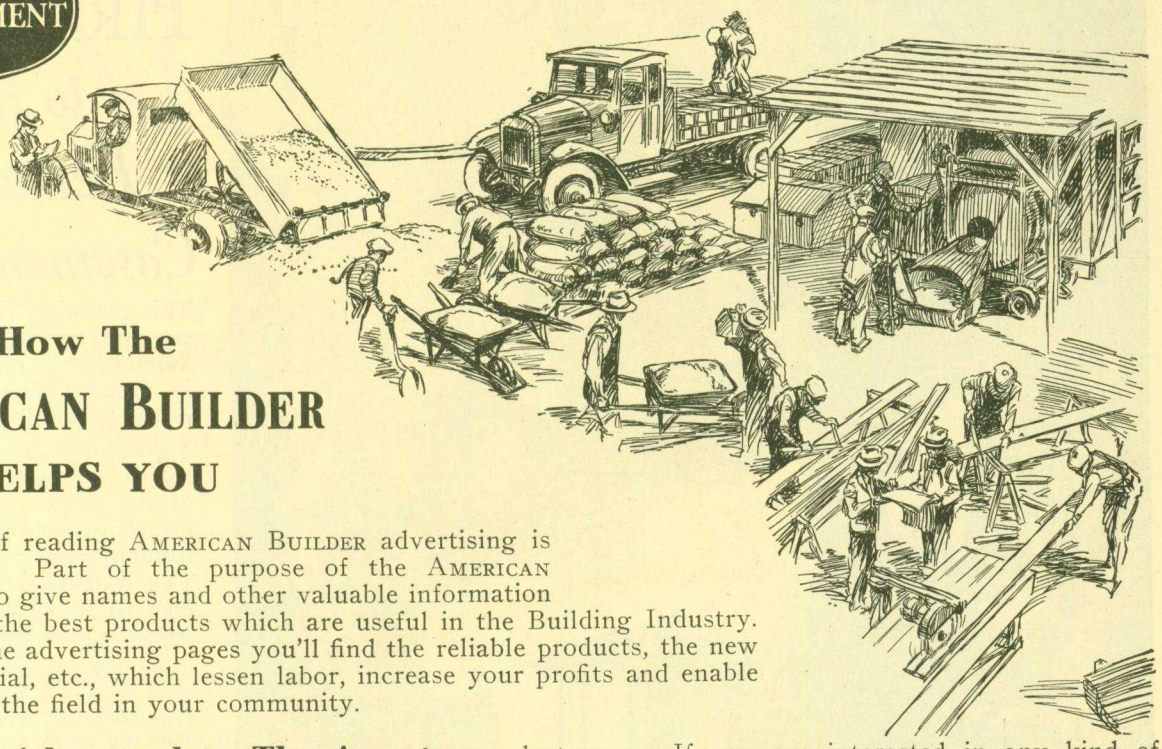
AMERICAN BUILDER SERVICE DEPARTMENT

Subscribers' Service Page



How The AMERICAN BUILDER HELPS YOU

The habit of reading AMERICAN BUILDER advertising is educational. Part of the purpose of the AMERICAN BUILDER is to give names and other valuable information concerning the best products which are useful in the Building Industry. Listed on the advertising pages you'll find the reliable products, the new ideas, material, etc., which lessen labor, increase your profits and enable you to lead the field in your community.

Products Advertised in The American Builder Should Have Your Preference

A manufacturer does not spend great sums of money advertising a product unless he has faith that it is of exceptional value and use in its field. When you see an article extensively advertised—you can bank on its value.

The AMERICAN BUILDER Magazine itself has maintained a high standard of service and integrity for twenty-three years. During all this time it has never knowingly taken an advertiser whose product was not all their advertisement claimed for it. Therefore, you can buy any AMERICAN BUILDER advertised product with a firm conviction that it is as represented.

Do You Get Your Share of the Business of Your Community?

One or more new machines, the use of a new material or an improved method of estimating may be just what you need to increase your profits over last year. If you are interested in any kind of building materials, contractor's equipment and machinery, power shop equipment, heating systems, plumbing supplies, water supply systems, lighting systems, elevators, school, church or theater equipment, farm building equipment, building hardware, home conveniences or anything that is used in constructing or equipping any kind of building—we will help you get all information.

Keep Informed

One method of keeping vital information at your finger tips is to maintain a complete file of catalogs.

FREE
TO AMERICAN BUILDER READERS

If there is some article which you want and lack the proper information regarding it, print or write your name plainly in the coupon below, list the articles and check your occupation. We urge you to take advantage of this great opportunity to procure valuable information.

AMERICAN BUILDER, 1827 Prairie Ave., Chicago, Ill.

Gentlemen: Please put me in touch with manufacturers whom you know to be reliable and can furnish goods promptly. I am in the market for the following items:

.....

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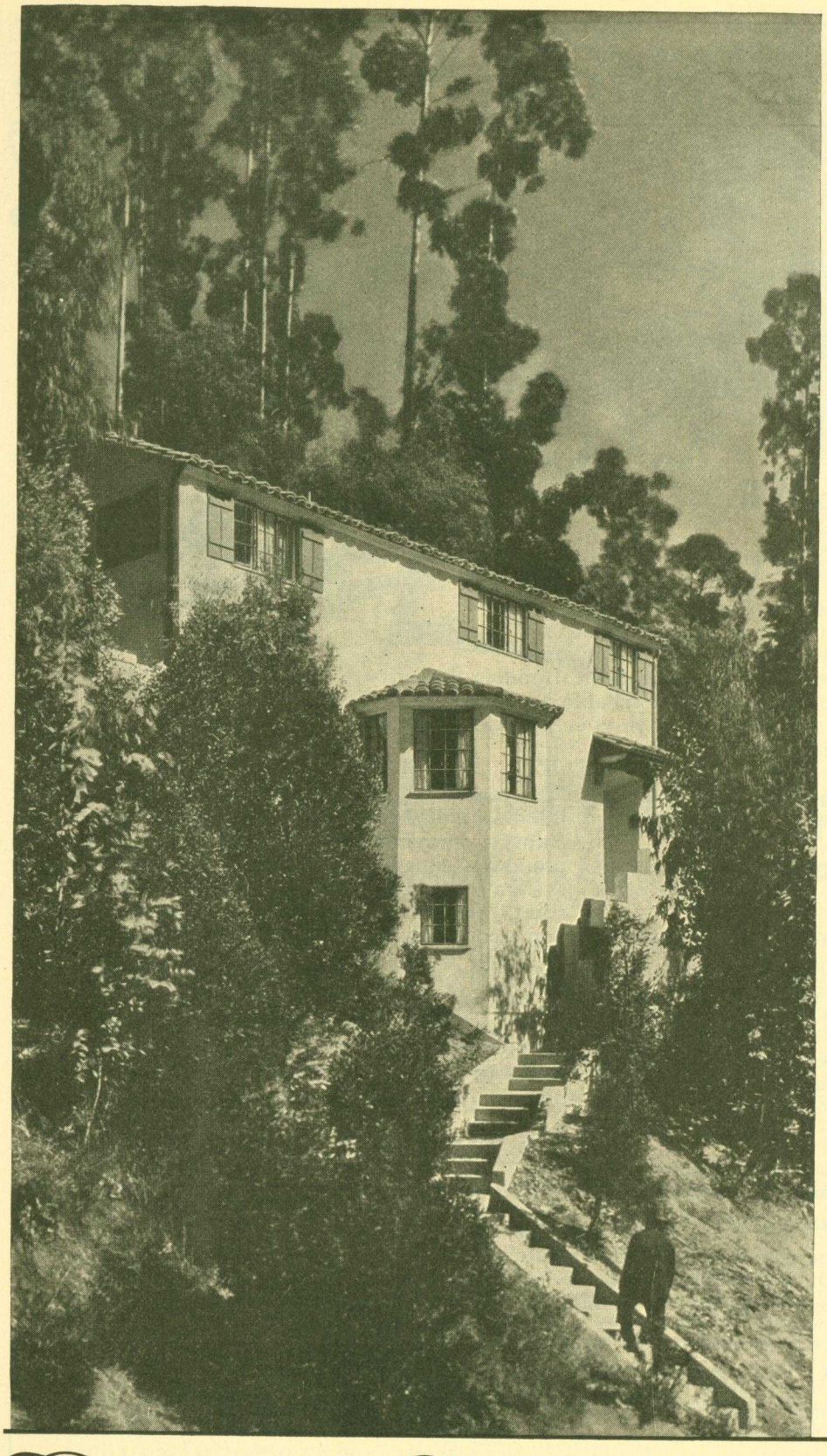
Name.....

Address.....

Please check your occupation.

Building Contractor ☐ Dealer in Building Materials ☐ Prospective Home Builder ☐ Architect ☐



FIRST PRIZE *to this Fenestra Casement Home*

This charming California home, equipped with Fenestra Casement Windows, was awarded first prize in House Beautiful Magazine's recent Small Home Competition.

Some of the major factors which led to the unanimous preference of the judges were: simplicity, household convenience, and harmony between house and site. That Fenestra Casements contributed to these and other advantages is shown by:

What the Builder says: "I have used your Fenestra Casements in the First Prize house and like them very much. They are simple and easy to set and adjust, and do not get out of order."

H. C. Kidder, Berkeley, Calif.

What the Architect says: "Fenestra Casements were selected because they economize wall space, because of their convenience, and because they cost practically no more than wood windows. The units are flexible, enabling the architect to fill openings of different sizes, yet preserving the scale."

Gwynn Officer, Berkeley, Calif.

What the Owner says: "Beauty, easy operation and cleaning, the providing of plenty of sunlight and fresh air, and low cost, are some of the things I like about my Fenestra Casement Windows."

(*Owner's name upon request*)

Besides these advantages, Fenestra Casements will promote sales for you. Try them on the next house or apartment you build.

DETROIT STEEL PRODUCTS CO.
2304 East Grand Boulevard, Detroit, Mich.
Factories: Detroit, Mich., and Oakland, Calif.
Convenient Warehouse Stocks

Fenestra CASEMENT *Windows*
of STEEL

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

AROUND *the* FAMILY TABLE

American Forest Week and the Lumber Industry

FOREST WEEK—April 22 to 28—is the big week of the year for the lumber industry.

The perpetuation of the industry is dependent upon the perpetuation of our forests. We are using annually 37,000,000,000 board feet of the product from our sawmills, of innumerable kinds, shapes and sizes. There is nothing we do, and nothing we make, but lumber of some kind and in some way plays its part. The use of lumber is so inextricably interwoven into our whole social and economic structure that we cannot do without it.

Thirty-seven billion board feet is the annual growth, under sustained yield forest management, of over 300,000,000 acres. At least that large an area must be kept constantly growing successive crops of timber, with careful fire protection and the best silvicultural treatment, to keep our lumber industry producing on its present scale, and to keep the country supplied with its needed lumber.

Naturally, therefore, the lumber industry is keenly interested in American Forest Week and its well planned effort to make the people of the country "forest conscious," realizing the economic necessity for forest perpetuation, and supporting all measures to facilitate the industrial growing of timber.

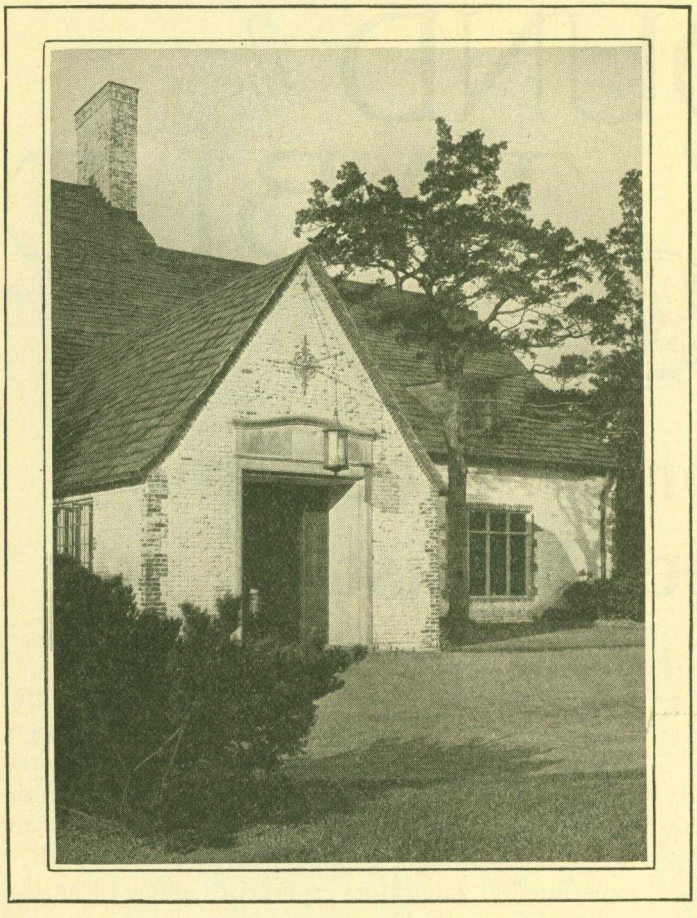
After three hundred years of lumbering, and of forest removal to make way for agriculture, we still have 130,000,000 acres of virgin forest left. This is enough at our present rate of consumption to supply our needs for perhaps two generations longer. But the lumber industry is looking beyond that period, to the time when it must depend for its raw material entirely upon man-grown forests. Already a number of its leaders have started on the task of growing new crops of timber on their cut-over lands. Their experimental laboratory comprises over 12,000,000 acres of forest land, where they are trying out all conceivable ways of making more and better trees grow faster.

Of our 470,000,000 acres of forest land, two-thirds will undoubtedly always be privately owned. To keep our forests always productive is therefore mainly a task for private enterprise, a problem of industrial forestry. Its importance to our general economic welfare is such that in the years to come it may well be ranked amongst our great public utilities.

Private enterprise of this sort, to be successful, must have the sympathetic support of the public, not only morally, but also in the concrete form of adequate fire and police protection, and of equitable taxation. American Forest Week in arousing public opinion to the hearty support of remedial legislation along these lines, will accomplish much in ensuring the success of industrial forestry.

There are those who believe that the way to save our forests is to stop using them. They would have us give up almost entirely the use of lumber in home building and do a hundred and one other things less efficiently and more uncomfortably than we do them now with wood. Yet, if we cease to use wood it will cease to be valuable, the forests which produce it will become worthless and it will no longer pay to take care of them.

The perpetuation of the forests, therefore, is dependent upon the perpetuation of the forest industries.



Looks Like a $25,000 House

but it will surprise you how much less it can be built for!

WHEN you build with common brick you can offer most unusual value! What appears to be a house of twice its cost is really only half that.

The very fact that people think brick is more expensive is proof of its superior appearance. The mellowness that rests upon brick walls, the soft tints, the interesting architectural effects of skintling, all combine to give to the common brick house a charm and beauty that looks expensive. To have this type of house for almost half of what they think it costs is news that makes sales come easy.

Whether you are building on order or speculation, bear this in mind. The first cost difference of common brick, and frame, is seldom more than the cost of one or two paintings.

But how quickly that small difference is wiped out. Lower insurance, saving on painting and repairs, and slower depreciation make a brick house cost less than frame in a very few years and worth far more!

There have been certain modern advances in brick construction which offer more simple and economical forms of hollow wall construction. In erecting these new types, the mason need employ no new principle.

There are several practical books offered by the Association of untold value to builders. One on skintled brickwork covering the new methods of obtaining interesting surface effects, will prove extremely helpful. A 72-page book illustrating 120 different small brick houses actually built, with accompanying floor plans is offered at cost.

Check the coupon now and mail it today. A dollar bill brings them all, or you can order separately. The services of the Association are available to all builders and dealers. Address nearest office.

BRICK *forever*

PREFERRED BY ARCHITECTS

COMMON BRICK MANUFACTURERS ASSOCIATION of AMERICA
MY2131 GUARANTEE TITLE BLDG., CLEVELAND, OHIO

Are you taking advantage of the service behind *Brick?*

Back of common brick is a trade service of important co-operation. Make use of it. At right we list a group of valuable brick books. These are distributed at cost. Send today for those you are interested in.

These District Association Offices and Brick Manufacturers Everywhere Are
AT YOUR SERVICE

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Chicago, 605 Builders Bldg.
Cleveland: Ohio Association 2124 Guarantee Title Building
Denver, 1735 Stout St.
Detroit, 400 U. S. Mortgage Trust Building
Hartford, Conn. 226 Pearl Street
New Orleans, La. 727 Canal Bank Bldg.
New York City 1716 Grand Central Terminal
Norfolk, Va. 112 West Plume St.
Philadelphia 1420 Walnut Street
Pittsburgh 702 First National Bank Building
Raleigh, N. C. 508 Com'l Nat'l Bank Building
Rochester, P.O. Box 773 (New York State District)
Salt Lake City 301 Atlas Block
Seattle, Wash. 913 Arctic Building

Send coupon below—send cash or stamps to nearest office —

☐ *"Homes of Lasting Charm"*—25c
☐ *"Skintled Brickwork"*—15c
☐ *"Multiple Dwellings of Brick"*—10c
☐ *"Farm Homes of Brick"*—5c
☐ *"Brick, How to Build and Estimate"*—25c
☐ *"The Heart of the Home (Fireplaces)"*—25c

Check above books wanted or send $1.00 for all of these books.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

AMERICAN BUILDER

Formerly AMERICAN CARPENTER AND BUILDER

1827 Prairie Ave., Chicago—250 Park Ave., New York City

Construction Volume Holds Up

CONSTRUCTION contracts to the amount of $592,567,000 were awarded in March in 37 states east of the Rocky Mountains, according to F. W. Dodge Corporation. This figure covers about 91 per cent of the total construction of the country. Last month's total was the highest monthly contract total on record for these 37 states since June, 1927. There was an increase of 27 per cent over the total for February of this year, but there was a drop of 5 per cent from the March, 1927, total.

Last month's record brought the total amount of new construction started since the first of this year in these states up to $1,485,067,000, being an increase of 6 per cent over the amount started in the first quarter of last year. In addition to being ahead of last year's first quarter record, it was the highest first quarter ever recorded for these 37 states.

Analysis of the March contract total showed the following important classes of work: $275,191,600, or 46 per cent of all construction, for residential buildings; $110,338,200, or 19 per cent, for public works and utilities; $73,075,300, or 12 per cent, for commercial buildings; and $33,881,000, or 6 per cent for educational projects.

✣

Building Codes Need Revision

ANTIQUATED building codes are making construction costs in many large cities unnecessarily high, Arthur R. Lord, president of Lord & Holinger, civil and architectural engineers, declared before a meeting of the Western Society of Engineers at Chicago. Lower rents, reduction in merchandise prices, and safer, more attractive buildings will result when municipal building codes are revised to recognize modern advances in construction science, he said.

Mr. Lord is a member of the new Chicago Code Committee, which is making a revision of the Chicago building code. Similar committees in New York and Philadelphia are working on the same code material and there is a prospect that uniform municipal building regulations may be adopted by all large cities. Many large cities are laboring under the same difficulties as Chicago because their building codes have not been revised for years and consequently prevent architects, engineers and contractors from taking advantage of recent developments and improvements in construction technique, Mr. Lord told the meeting of engineers.

"Chicago building ordinances were slightly revised in 1917, yet since that time many advances have been made in engineering which make construction both cheaper and stronger," Mr. Lord asserted. "But on these advances, our present code and similar ordinances in other cities, are silent. If they were incorporated into and recognized by the codes, building costs could be cut, rents could be lowered, and the general public would benefit by lower prices because merchants' overhead would be reduced.

"For example, the present Chicago code specifies six sacks of cement to a yard of concrete in order to secure a strength of 2,000 pounds. Yet our experience with Wacker Drive showed that with exactly the same materials we can get 3,500 pounds or an increase of 75 per cent in strength without any additional cost."

Mr. Lord's paper describing the Wacker Drive project, for which he was consulting engineer on design and construction, won for him the Wason medal, awarded by the American Concrete Institute.

Explaining this increased strength of concrete, Mr. Lord said: "We do this by what is called the water-cement ratio which merely means keeping the ratio between the water and cement constant. This discovery, which is not recognized by many city building codes, gives us at the same cost almost twice the strength we need for the work indicated in ordinances. Where this greater strength is not required, by increasing the amount of sand and stone in our concrete mixture, we can obtain the 2,000-pound strength at much lower cost. This is a development and advance in building science which was unknown to us ten years ago when the present ordinance in Chicago was adopted. Bringing our building laws up to date will mean lower building costs and better construction.

"What is true of concrete is true of other materials," Mr. Lord continued. "Take an inch-square bar of steel a yard long which weighs ten pounds. We formerly let it bear an 18,000-pound load. Our tests and experience show that in reality the steel has been loafing on the job, for it can easily bear a 20,000-pound load, or an increase of almost 12 per cent. With this more accurate knowledge, greater loads could be applied to both steel and concrete, provided the building ordinances permitted it. This would permit smaller columns and contribute to the architectural beauty and attractiveness of modern buildings."

Building code revision now being considered by the Chicago, New York and Philadelphia committees would recognize all tested discoveries and advancement made in building knowledge and would provide greater uniformity in the various cities. It is believed that adoption of the new code in the three cities will lead to its adoption in most of the large cities of the country.

✣

Why Mail Is Lost

THE moving season is again with us. More than 600,000 changes of address were filed with the Chicago Post Office during the past year, according to Postmaster Arthur C. Lueder, but there were many thousands who moved and did not notify the post office, with the result that many pieces of first-class mail and parcel post remained undelivered and great quantities of circular matter and newspapers were returned or destroyed.

If you move, notify the post office, giving the old and new addresses. Blanks for this purpose may be obtained from the carrier, or an ordinary post card may be used.

Subscribers to this magazine should immediately notify the publisher of a change of address, so that you may continue to receive your magazine without interruption.

A Simple Test
to Determine When to Use *High-Early-Strength* Universal Concrete

Does the owner want early use of the improvement?

Is extra-strong concrete desired?

Would early stripping and more frequent re-use of forms effect a substantial saving?

If so, use *High-Early-Strength* Universal Concrete.

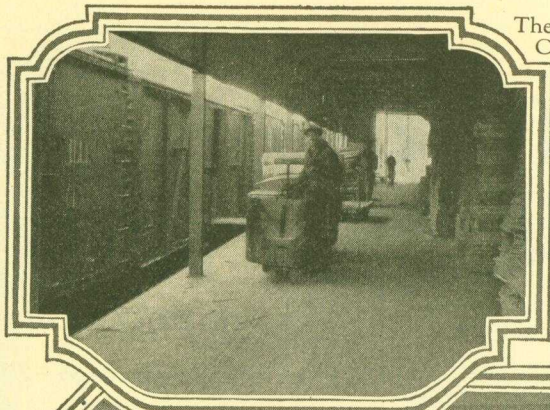
This concrete may be made as workable as desired and used on *all types* of jobs. It not only is as strong at 3 *days* as ordinary concrete is at 28 *days* but is twice as strong at 28 days as ordinary concrete and better and stronger forever after (see diagram).

High-Early-Strength Universal Concrete is made by approved methods with *usual* materials, *usual* equipment, *usual* labor and *usual* Universal cement. For full details send in the accompanying coupon.

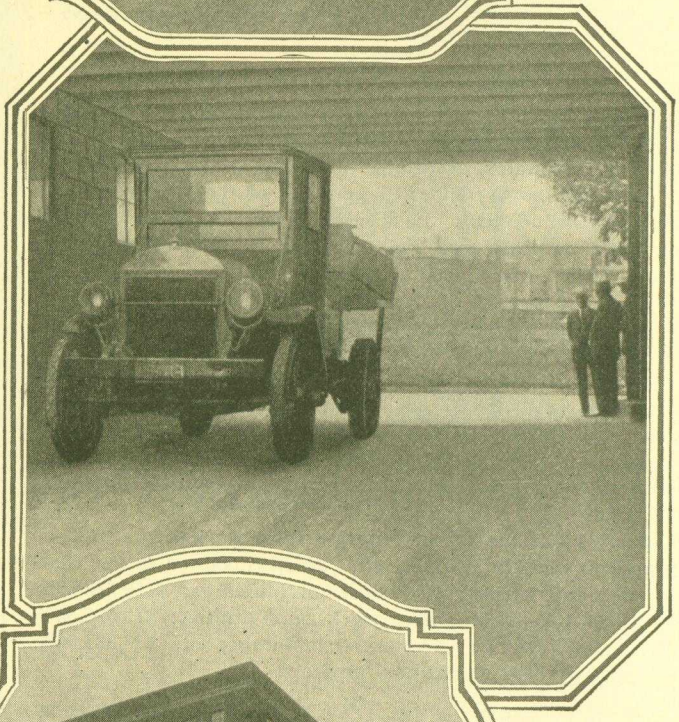
Universal Portland Cement Co.

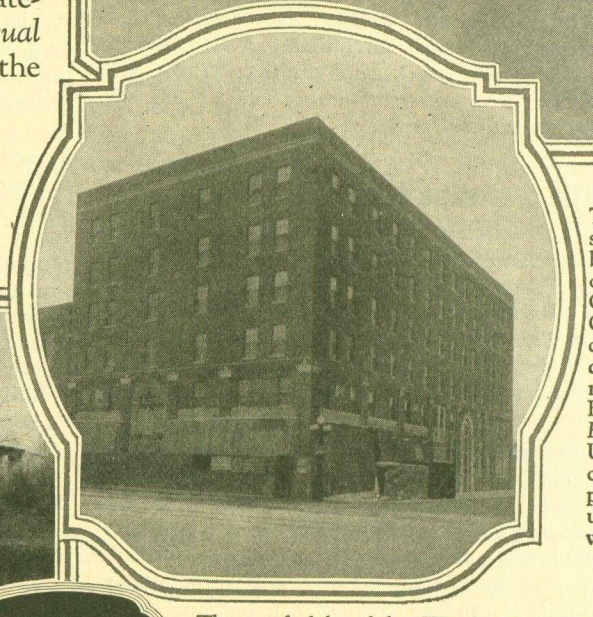
Chicago Pittsburgh Minneapolis Duluth Cleveland Columbus New York

Concrete for Permanence

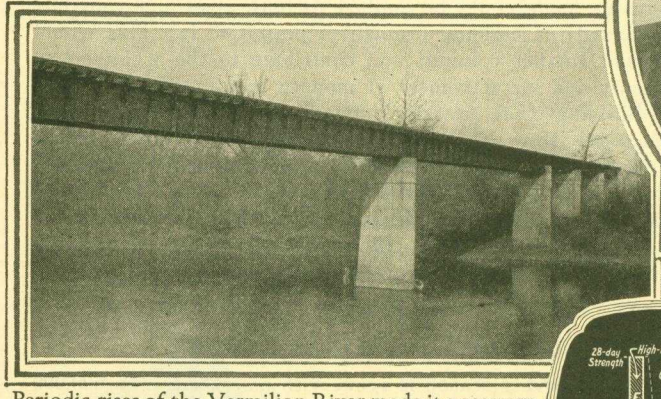


The Lehon Co., Chicago, needed a new shipping platform. The builder completed the job in 3 days without interruption to loading by using *High-Early-Strength* Universal Concrete.

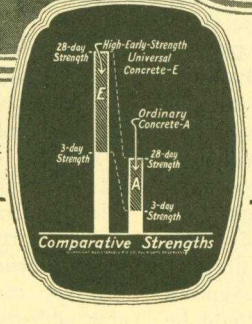




The 150-ton sand and gravel bin of the Monongahela, Pa., Coal & Supply Co. was closed down awaiting completion of a new driveway. By using *High-Early-Strength* Universal Concrete the company secured use of driveway in 3 days.



Periodic rises of the Vermilion River made it necessary to increase the height of the bridge of the Streator, Ill., Drain Tile Co. Both early use of the improvement and permanently stronger concrete resulted from use of *High-Early-Strength* Universal Concrete.



The roof slab of the Ward Hotel, Aberdeen, S. D., reached the concreting stage when winter set in. With speed essential to meet scheduled completion date, the contractor used *High-Early-Strength* Universal Concrete, shortening the period during which protection from freezing was necessary. The building was then housed in with tarpaulin and work rushed on the lower floors.

Universal Portland Cement Co.
208 South La Salle Street, Chicago

Without obligation, please send me detailed information on methods of securing strong concrete in 3 *days* with the usual materials and equipment.

Name _____

Address _____ AB 5-28

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

EVERYBODY'S BUSINESS

Capitalizing the Future

By FLOYD W. PARSONS

FOUR-MILLION share days in the stock market are a bit confusing to many business men at the present time when they are finding it difficult to maintain earnings at a fair level in the face of bitter competition and low selling prices. The fact is that the profit hazards in industry were never so great as they are today. Approximately 45 per cent of the companies in America during the past four years have reported deficits. More than 100,000 small concerns disclosed an average profit of only $95 a year apiece. On the other hand, 200 of our big American corporations showed an average annual profit exceeding $15,000,000 apiece.

It never has been easy for the average person to make money and probably it never will be. The little chorus girl from the country has her ambitions fired and her hopes raised when she views the names of her successful sisters that blaze forth in the Broadway signs. The tens of thousands who fail get no advertising. The same thought carries on into practically every avenue of business. Victory reaches the front page in a hurry, and it requires the exercise of much sense and restraint to keep one's head when money-making becomes a hysteria.

It's mighty pleasant to think of getting a fortune quickly without working for it. Tens of thousands of people throughout the United States are now engaged in that kind of an occupation. They have been taken in by pernicious propaganda. Their minds are possessed by the notion that because we live in a new day with a new order of things all precedents must be discarded.

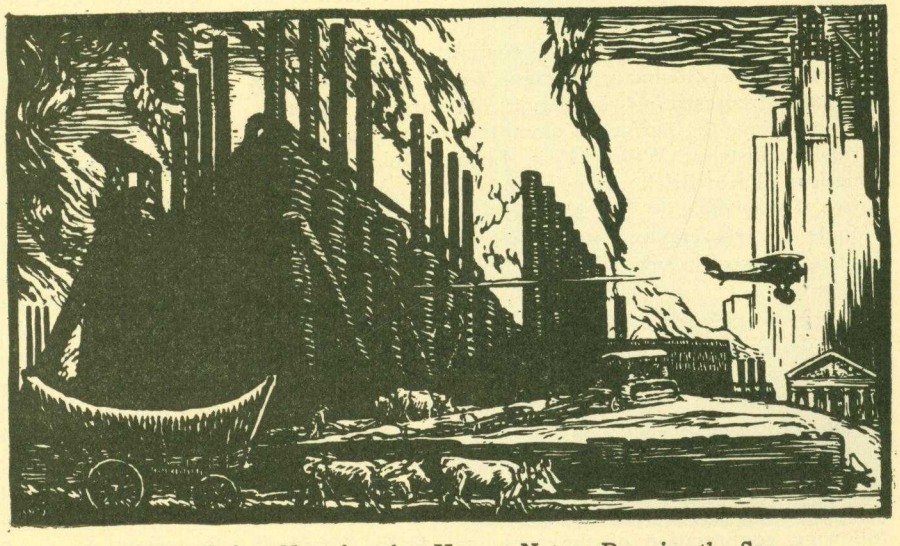
I quite agree that current conditions in a great many fields are totally different from those of yesterday. Even the stock market now functions with improved methods and better machinery. But human nature remains practically the same. The effective use of exaggeration and prevarication has kept pace with the times. The more efficient facilities now available for spreading useful information are also employed for stirring up dangerous emotions and fostering the desire to get something for nothing by gambling.

My sole purpose in presenting these thoughts is to try and preserve the spirit of caution that is so necessary in the realm of business during a time of prosperity. It would be a great pity to find the growth of business halted and good times jeopardized by creating an inflation of values that would place enormous wealth in the hands of a few and bring losses and distress to a multitude of people. Already there are evidences that certain groups of financial and industrial leaders have become so intoxicated by the new power placed in their possession through the ownership of stupendous wealth that the warnings of conservative business are completely ignored.

That the people of the United States may look forward to a wonderful future perhaps even exceeding the expectations of the optimists themselves is quite probable. But the problems that lie ahead are not so simple that they can be entirely disregarded. It is far easier to put the price of a stock up fifty or a hundred dollars a share than it is later on to produce earnings that will justify the price. Not all dreams will be realized. In many places there will be disappointments. We gain absolutely nothing by trying to close our eyes to the realities of life and business. Excesses always bring days of reckoning.

This is not set forth in any spirit of pessimism. The whole history of America has shown that it pays to be a bull on the United States. Even Carnegie, smart as he was, could not foresee the rapidity of our country's growth. When the U. S. Steel Corporation was organized he said that the preferred stock was water and the common, air. He actually believed he would get his mills back even-

(*Continued to page 124*)



Industry Is in a New Age, but Human Nature Remains the Same.

Modernizing Bureau Organized

Entire Building Industry Gets Back of Movement to Make Old Homes New—Building Contractors to Play Important Part

WHAT leaders in the building industry described as the greatest concerted movement ever undertaken by the construction interests in the United States was formally launched in Chicago on April 11, when 131 executives of 44 associations, corporations and other factors in the building field established a new organization named the Home Modernizing Bureau of the National Building Industries.

Necessary funds to get the organization under way were secured. The meeting voted to incorporate a non-profit organization, elected officers, engaged a secretary and empowered a committee to open headquarters and to begin work on the job of modernizing the more than 20 million existing homes in the United States.

While the immediate objective is the stimulation for this tremendous volume of remodeling work, speakers expressed the opinion that the following results also would be accomplished:

1. Stimulation of new building.
2. Stimulation of home-ownership.
3. Modernization of all other types of structures besides homes.
4. Persuasion of public bodies to undertake necessary public works programs.
5. Preservation of property-values in many communities.
6. Stabilization of prosperity in the building field.
7. Relief of the unemployment situation in the building trades and contribution to general prosperity.
8. Improvement of social conditions.
9. Provision of a basis for future united action on the part of all factors in the building situation looking toward their common interests and prosperity.

Walter J. Kohler, Kohler, Wis., representing the Plumbing and Heating Industries Bureau, who was chairman of the acting executive committee which set out the call for the meeting, was elected president and chairman of the executive committee. Other officers were chosen as follows:

First Vice-President, A. Trieschmann, Chicago, National Lumber Manufacturers' Association.

Second Vice-President, Oscar W. Rosenthal, Chicago, National Association of Building Trades Employers and Associated General Contractors of America.

Third Vice-President, Otto T. Salick, Milwaukee, Wis., President of the U. S. League of Building and Loan Associations.

Members of the executive committee (besides the officers): C. E. Stedman, Chicago, Vice-President Celotex Company, representing insulation; Willard E. Maston, Chicago, Save-the-Surface Committee of the paint and varnish industries; Wilbur Fisk, Logan, Ohio, President American Face Brick Association; Frank A. Hofheins, North Tonawanda, N. Y., President Weatherbest Stained Shingle Co., representing stained wood shingles; Harry S. Knox, Chicago, President Wholesale Sash and Door Association.

George E. Piper, of Chicago, who is well known to AMERICAN BUILDER readers as the author of the Dixon, Ill., remodeling campaign story, was named secretary by the executive committee at its organization meeting. Messrs. Stedman, Rosenthal and Maston were appointed a committee to supervise opening offices in the Builders Building, Chicago, and starting actual operations.

Other executive committee members are to be elected, following confirmation of the personnel of the board of governors representing various branches of the industry. The board of governors, as constituted at present, is listed at the conclusion of this article.

Commendation from two national cabinet officers contributed an atmosphere of national significance to the meeting. Mr. Kohler read excerpts from a letter from Secretary of Commerce Hoover, endorsing the principles of the movement and stating:

"If there is any helpful information which our division of building and housing, or any other branch of this Department, can furnish at any time, I hope you will feel free to call upon us."

Secretary of Labor Davis wrote:

"A co-operative campaign for remodeling old homes impresses me as being a good move on the part of the building and building materials industries, and also a move which would have many advantages for the people. For the most part these old homes were better constructed originally than many of the new ones, and if their value could be preserved by remodeling and modernizing them it would be a move in the right direction."

But it was not merely the fact of this interest on the part of national officials, nor the additional fact that the men present represented an annual volume of business exceeding six billion dollars, which stimulated expressions as to the importance of the enterprise. The atmosphere of the meeting was that the united industry was going to tackle the biggest job it ever has undertaken.

Action was in the air. Speaker after speaker stressed the thought that the building industry needs to help itself out of an uncomfortable situation—that new home-construction is not of sufficient volume to employ all the capital, labor and other resources of the interests in the field; that bringing American dwellings up to date represents tremendous possibilities in the way of utilizing those resources; and that co-operation on the part of all concerned is the only way in which these possibilities can be actualized.

Several elements of first importance pledged support to the united movement, humorously stating that, if the movement didn't move unitedly, they would do so separately. The contractors' groups, the retail lumber dealers and the building and loan associations expressed this attitude. Oscar W. Rosenthal, representing the National Association of Building Trades Employers and the Associated General Contractors of America, put it picturesquely:

"This movement you are starting is a selling proposition. It is not an experiment. In Illinois alone, we contractors have started programs of this sort in 15 towns, and expect to have the number up to 50 within 90 days.

"Now, we are eager to act with you. We are even willing to let the manufacturers who predominate in this meeting take the leadership of the campaign. If you take it, I promise to 'deliver' to you the 50,000 building contractors of the United States.

"I mean that these 50,000 contractors, your customers, will go out and sell your big idea and sell your products for you. They will put their money and their organization behind you. They will advertise with and for you. They will even buy houses, remodel them, and invite the public to them, at their own expense, to demonstrate what can be done with this remodeling idea.

"But if you want our co-operation, you have to operate. We are going ahead. Our plans are in operation already, and the extent of our co-operation will be determined by the extent of your leadership."

President Kohler, whose leadership in the home-building field is expressed in his creation of the internationally famous ideal community at Kohler, Wisconsin, stated the main purposes of the organization as follows:

"Hundreds of thousands of American families are living in conditions no better than those of European peasants. Tens of thousands of dwellings, in cities where complete water and sewage systems are available, lack sinks, bath tubs and indoor toilets. How can it be said that there is over-production in the building industry, or surplus facilities for production, as long as these conditions exist?

"This movement is to bring all the interests concerned together under one united leadership. As a result, it will enable the building industry to compete more successfully for the public's interest and its dollars. It will create new interest in old homes. It will preserve property values in thousands of communities. It will increase general prosperity in our industry and in all related businesses.

Russell G. Creviston, Evansville, Ind., manager of the Plumbing and Heating Industries Bureau, outlined the definite plan of action which the committee contemplates. It includes appointment of committees on publicity and advertising, local campaigns, home-financing and sales co-ordination. Under direction of these committees, the following immediate activities, besides others that will develop as conditions require, will be undertaken:

Publicity—Direct distribution of press-material; mobilization of support of newspapers, magazines, banks, civic organizations, women's clubs, public officials, educators and other major influences; supplying advertising, publicity and business-building plans to these local agencies.

Local Campaigns—The devising of standard plans for local bureaus, co-ordinating all local groups and interests; the direct establishment of some such bureaus by a field staff, and the stimulation of their organization by local initiative.

Sales Co-Ordination—Development of methods and plans in which the sales organizations of the member-groups may participate.

Practical co-ordination of advertising and publicity efforts.

Speakers' bureau.

As constituted at present, the board of governors, to which other members will be added, consists of the following:

Lumber group: A. Trieschmann, Chicago, Vice-Chairman National Lumber Manufacturers' Association, governor; W. F. Shaw, Chicago, manager central division National Lumber Manufacturers' Association, alternate.

Oak Flooring group: George A. Houston, governor; W. L. Claffey, Chicago, Secretary Oak Flooring Bureau, alternate.

National Retail Lumber Dealers' Association; A. W. Ffund, Chicago, alternate.

Wholesale Lumber: W. W. Schupner, New York City, National American Wholesale Lumber Association, governor.

National Building Supply Association: Walter Jahncke, New Orleans, La., governor.

Prepared Roofing: J. F. Bryant, New York City, Secretary Asphalt Shingle and Roofing Association, governor.

Paint and Varnish group: Willard E. Maston, Chicago, governor; R. M. Newman, alternate.

Oil Burner group: John S. Coonley, Jr., alternate.

Lumber Fabricators, sash and door: P. A. Richardson, governor; N. L. Godfrey, National Door Manufacturers' Association, alternate.

Copper and Brass: A. R. Waterman, Kenosha, Wis., temporary governor.

Wholesale Sash and Doors: Harry L. Knox, governor; S. F. D. Meffley, Sash and Door Association, alternate.

Mill Work Cost Bureau: E. J. Curtis, Curtis Company, Inc., governor; D. L. Appleton, alternate.

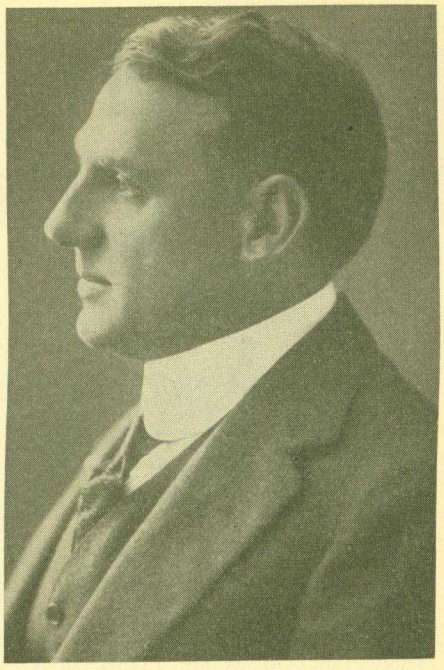
Fir Door Manufacturers: George J. Osgood, governor; W. L. Brown, alternate.

Sheet Steel: C. L. Patterson Pittsburgh, Sheet Steel Trade Extension Committee, acting governor.

Sheet Metal Contractors: Paul L. Biersach, Chicago, President National Association of Sheet Metal Contractors, governor.

Cement industry: George Warren, Chicago, Secretary Portland Cement Association, temporary alternate.

Insulants: C. E. Stedman, Chicago, governor; C. D. Freeze, Alternate.



Walter J. Kohler, President.

Face Brick: Wilbur C. Fisk, Logan, Ohio, President American Face Brick Association, governor; R. D. T. Hollowell, Chicago, Secretary of the association, alternate.

Weatherstrips: Willard D. Smith, St. Louis, Director of Sales Monarch Metal Weatherstrip Company, governor; Robert M. Burns, alternate.

Architects: W. H. Olmsted, temporary alternate.

Plumbing and Heating Industries Bureau: Walter J. Kohler, governor; Russell G. Creviston, Evansville, Ind., alternate.

Sanitary Pottery: J. W. Oliver, Vice-President Standard Sanitary Manufacturing Company, governor.

Heat by Radiator: Charles Foster, Vice-President American Radiator Company, governor; W. M. Scudder, Vice-President American Radiator Company, alternate.

Plumbing Industry: H. W. Seymour, Vice-President Crane Co., governor.

National Association of Heating and Piping Contractors; Harry M. Hart, President, alternate.

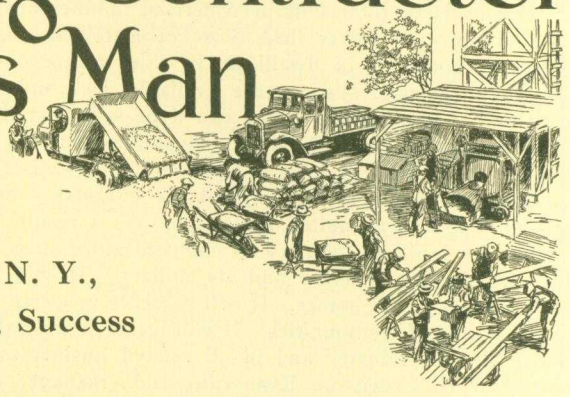
National Association of Master Plumbers: Thomas F. Nolan, President, governor.

National Pipe and Supplies Association: W. E. Clow, Jr., Chicago, governor.

Building and Loan Movement: Otto T. Salick, President U. S. League of Building and Loan Associations, governor; Charles J. Churon, alternate.

George Piper, Secretary.

The Modern Building Contractor is a Big Business Man



Enough of the Methods of Frank N. Goble, Inc., of White Plains, N. Y., to Explain this Company's Outstanding Success

THAT methods which have made modern "big business" successful are applicable to the business of the individual contractor is nowhere better illustrated than in the record of Frank N. Goble, Inc., of White Plains, in Westchester County, New York. White Plains is a medium sized city—about 28,000 population—and the remarkable development and expansion of this company in its community is marked at every step by the application of the principles of "big business." The methods of personnel management, insuring a friendly interest shared by employe and employer are particularly well demonstrated.

The Goble methods are exceptional even in this progressive age. The system of monthly meetings for their supervisory force have developed to a point where the general public has been entertained in meeting halls hired by the firm, at illustrated lectures on interesting phases of building. The cost of these lectures has been amply repaid by the quickened local interest in building in general and in that of the Goble firm in particular.

William J. Goble, President of Frank N. Goble, Inc.

The story of Frank N. Goble, is that of success through industry, fair dealing, and modern methods and equipment.

The firm started in 1904 with the construction of a small gardener's cottage for Mr. Charles Smithers on North Street in White Plains. The start was a small one, but successive years of good building have made the Goble name synonymous with good construction and have made the firm one of the largest in White Plains and the surrounding country.

Frank N. Goble is a graduate engineer and has always followed technical lines. He studied at McMaster University in Toronto, Canada, and at Harvard. Shortly, following the original contract, he was entrusted with a large job, that of effecting alternations and additions to the First Presbyterian Church on North Broadway. Then came a contract for the Home Sav-

Morning at the Yards of Frank N. Goble, Inc., Builders, of White Plains, N. Y., a Modern Constructing Firm, in a Typical Growing City, Which Has Used "Big Business" Methods in Winning Success.

Paying Off at the Job. Frank N. Goble, Inc., has adopted the Cross Armored Car Service for handling its regular payroll. In this way it not only protects its money but also safeguards the men who handle it.

ings Bank Building.

From that time on considerably more than twenty years ago the rise of the concern has been continuous and steady. The business branched out until an office was opened in New York City. Contracts for work were secured in Connecticut, New Jersey, Pennsylvania, Delaware, Virginia, Georgia, South Carolina, and in many other distant locations.

The field and shop equipment of the firm is especially noteworthy. It includes woodworking machinery which eliminates the bothersome worry of getting miscellaneous shop work done in a hurry, such as last minute changes in plans and the small but important alterations in detail work which might otherwise delay an important job.

This Familiar Diamond Shaped Sign Marks Every Job on Which the Company Works.

The larger woodworking plants can scarcely be expected to meet the demands of work of this nature since they are often tied up to a schedule and cannot, without loss, make changes in their routine on short notice.

A two-story building erected by the concern, houses both office and shop. In the rear of the building are lumber sheds, a large garage, and paint shop. A driveway on the left side of the shop building is the entrance to the rear yard. The building is an attractive brick structure. The main entrance leads directly into a reception room and general office, the equal of any prosperous commercial establishment.

The office equipment consists of a number of typewriters, check writer, payroll tabulator, adding machine, and calculating instrument. One feature that impresses the visitor is a comprehensive file of catalogs kept in filing cabinets and book cases. These catalogs cover the entire building field. They are cross-indexed and kept up-to-date, so that when any particular information regarding material or equipment is desired it can be found instantly. In the preparation of these catalogs, use was made of the comprehensive advertising pages of the AMERICAN BUILDER, especially the April issues, which are really encyclopedias of building materials and equipment.

The rear of the first floor and the entire second floor is devoted to the shop, while the general office, estimating room and private offices are in the front of the building. Considerable ingenuity was used in incorporating various materials in the walls and partitions of the general office. In this way, they serve as samples to show visitors, and it adds a decided "building" atmosphere to the office.

The equipment and layout of the shop, while very interesting to builders, would be a revelation to the general public who do not understand the variety of builders' equipment necessary for carrying on various large operations. Like an army with its base of supplies, the Goble plant stands at the back of every job. The equipment of the shop is shown in the list on this page as is also the field equipment.

A one-story garage, steam heated, affords shelter to the fleet, and the complete machine shop attached is in charge of a competent mechanic who takes care of all repairs and overhauling, constantly inspecting the auto fleet and job equipment.

The extensive storage racks and sheds afford the opportunity to purchase considerable stocks of standard materials when prices are lowest. For finish stock there is maintained a supply of oak, whitewood, fir, birch, ash, chestnut, cypress, Oregon pine, North Carolina pine,

Shop Equipment

FIRST FLOOR—

Seven-inch, four-sided moulder
Rip saw
Cross-cut saw
Twenty-four-inch combination planer
Fourteen-inch lathe
Sixteen-inch jointer
Grinder
Anvil drill

SECOND FLOOR—

Mortising machine
Six-inch miter machine
Four-inch, four-sided sticker
Double spindle shaper
Special pocket machine
Pulley machine
Twenty-six-inch band saw
Two combination saw tables
Tenon machine
Boring machine
Mortiser
Grinder
Belt sander

To remove refuse from machines a blower system has been installed. Individual electric motor driver is used on all these machines.

Field Equipment

Concrete mixer
Concrete mixer with 6 h.p. engine and folding platform.
Concrete mixer with hoist and 30 h.p. electric motor
Two gas engines—one equipped with air compressor
Electric drill
Hoist
Two bar cutters
Diaphragm sewer pump and power pump
Forge cutter
Chain hoist
Portable hoist
Centrifugal pump—gasoline, two inch
Portable saw table
Carbide lights for night work
Blasting outfit
Three concrete heaters
Sack bailer
Metal lath cutter
Pipe cutter
Convertible level
Transit
Eighteen-inch "Y" level

Automotive Equipment

1—One-ton truck
1—Two-ton truck
1—2½-ton truck
6—Passenger cars

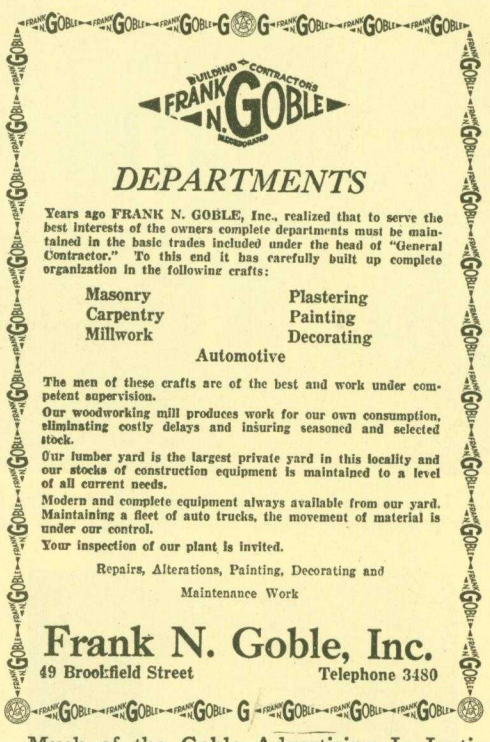
Complete Equipment for First Class Work Has Proved a Good Investment for Frank N. Goble, Inc., and This List Shows What Complete Equipment for Such a Business Means.

and a quantity of three and five-ply veneer panels of birch and oak.

Not to do cheap work, but rather good work economically has been the Goble policy, for the apparent saving in cheap work is often more than eaten up in subsequent replacements and repairs, to say nothing of the dissatisfaction and annoyance to all parties concerned. Frank N. Goble, Inc., is a strong supporter and member of the Westchester County Chapter of the Associated General Contractors' of America, whose motto is "Skill, Integrity and Responsibility."

The progressive and skillful advertising done by the concern is an exceptionally intelligent example of the proper sort of publicity work. The advertisements are prepared with a standardized border, made of a repeating diamond design in the form of the well-known Goble trademark.

The advertising bears the earmarks of restraint and good taste and is of an institutional nature. The different examples have, usually, as their central subject, some phase of organization such as the personnel. One advertisment may take up the work of the different departments comprising the organization, while another may call attention to some lesser-known activity of the concern, such as remodelling or painting work.



Much of the Goble Advertising Is Institutional, Centering Around the Company Organization and Personnel.

The feature of holding monthly meetings of the superintendents, foremen and office force would seem comparatively new with firms of the Goble type, although a recognized success in many other lines of business where the personnel is all-important to the work of the company. In this respect the Goble firm ranks with any industrial enterprise in which modernization has played a part. It is rather a striking example of the benefits of modern methods applied with understanding to a fresh field.

After the inauguration of these meetings, it became customary to hold a social hour following the business session with its talks on pertinent subjects and free discussion by everybody. From the very start, the meetings were a pronounced success in promoting co-operation and intelligent and active discussion.

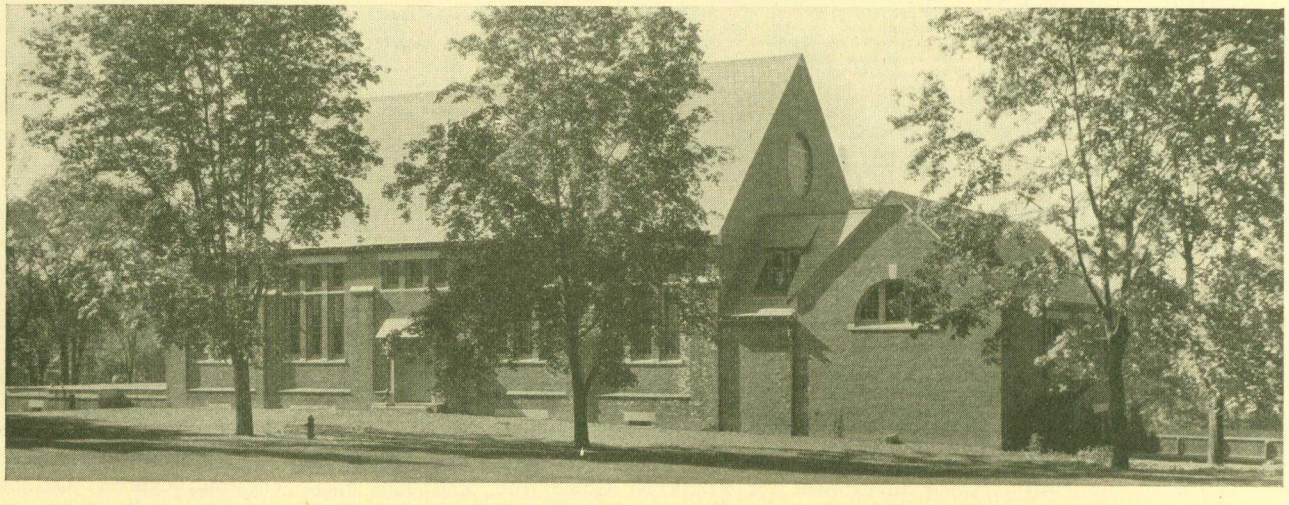
The enthusiasm manifested at the meetings convinced the executives of the company that the general public would be interested in hearing the history of manufacture and use of the materials entering into building. A lecture on terra cotta ushered in this series, and immediately captured the public interest.

Lantern slides and a short musical program supplemented the talks and refreshments of coffee, ice cream and cake were served, lending a home-like atmosphere to the affairs. In these, as in all other like affairs, the expenses were borne by Mr. Goble, who was alive to the increased esteem and favor with which his firm was honored as a consequence. In this matter, it is interesting to remark upon the surprisingly large percentage of the individuals in a community whose work brings them in contact with some phase of building.

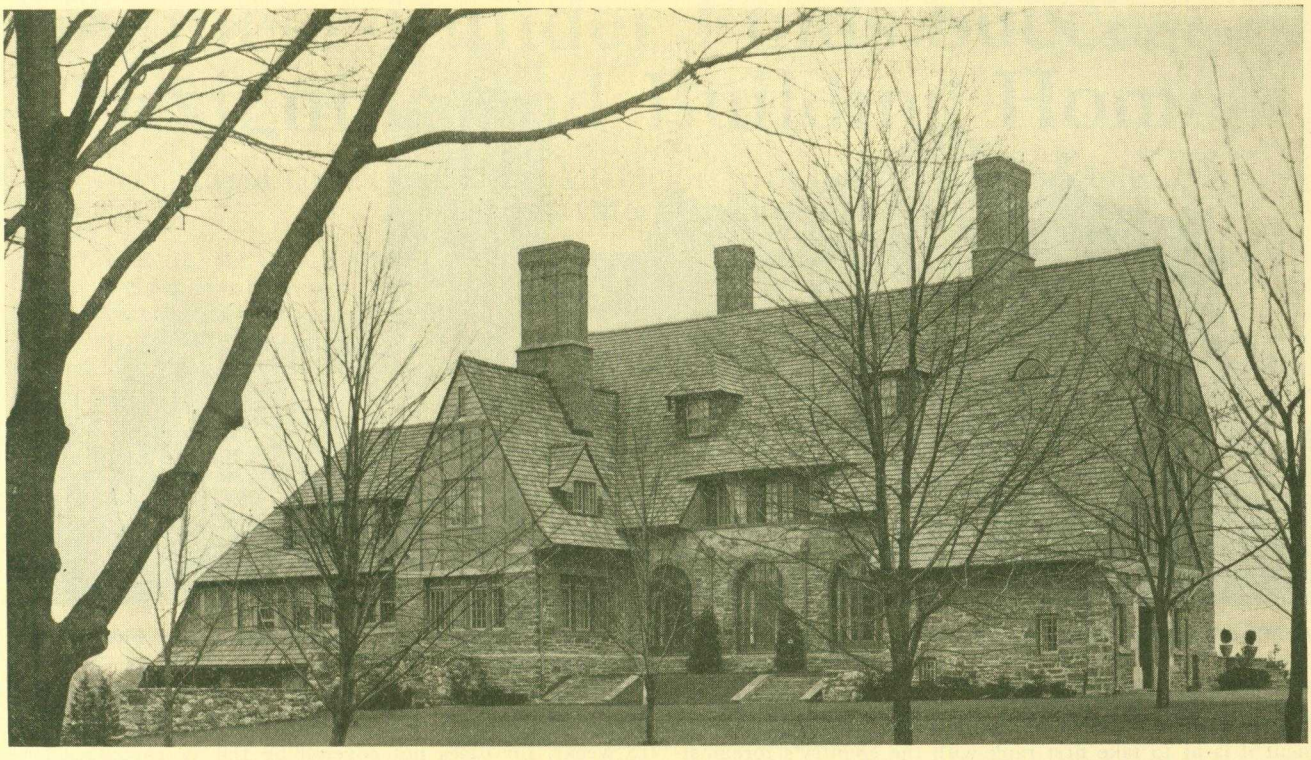
In the subsequent meetings invitations were extended to the members of the local Lions' and Rotary Clubs, real estate dealers, bankers, supply dealers and others interested in real estate. The general interest taken in these meetings confirmed Mr. Goble's opinion that the public at large is taking an increasingly greater and more searching interest in building construction and that prospective house builders of today are anxious to learn about proper materials and methods to be used in future homes. Cost, adaptability to various styles and periods, financing methods and construction are subjects of seemingly unlimited interest to the public.

It seems obvious that considerable publicity value may be created for the firm taking advantage of this general interest. When given under the auspices of a prominent building firm of known integrity, it seems reasonable to expect that a considerable revenue in good will for that firm will be the result.

Such a series of public informative talks would seem a logical and a practical merchandising effort for any building firm in almost any community. Or a group of firms or associations might arrange such meetings, economically and to the mutual benefit of everyone. Anything which will stimulate and satisfy the public interest in home building is considered good business, and it would appear manifest



The Men's Gymnasium of the Bloomingdale Hospital, Grosvenor Atterbury, Architect. One of several buildings erected by Frank N. Goble, Inc., for this hospital.



One of the Fine Homes, the Residence of L. D. Armstrong, at Riverside, Conn., Donn Barber, Architect, Which Stand for the Kind of Work Done by Frank N. Goble, Inc.

that such a scheme could not fail in its purpose.

A few years ago ill health forced Mr. Frank N. Goble to retire and move to California, where he now resides at Pasadena. Since then, the presiding has devolved upon William J. Goble, his brother, under whose leadership the firm has continued to advance in prosperity and esteem. William J. Goble is a graduate of Woodstock College, Ontario, Canada, and has followed the building trades since he emerged from his school training. This particularly fitted him to take the position of general construction superintendent soon after the formation of the concern and to assume the duties of president upon the retirement of his brother.

Today he is an acknowledged authority in construction work and in addition to increasing duties with the company is vice-president of The Peoples National Bank of White Plains, and a director of the Lions' Club. He is also active in fraternal affairs, a member of the Canadian Club of New York, Milton Point Casino, White Plains Club, etc., and actively interested in community developments and projects.

He possesses fine qualities of leadership, inspiring confidence and respect. His first thought is for the welfare of his employes and he shares alike their joys and sorrows. For none is quicker with the helping hand or sympathetic word.

The high regard in which he is held is reflected by the inscription his employes caused to be inscribed recently to him, viz.:

Employer—Counselor—Friend

"A Man!—a right true man, however,
Whose work's worthy a man's endeavor,"

And to whom this page is affectionately inscribed by his Associates in tribute of their esteem.

He had had entire charge of the construction plant, the field forces and the execution of the building operations before his installation as president.

Thomas H. Cole, the treasurer, joined the organization eleven and a half years ago. He had previously been employed by P. F. Collier and Son, in their Accounting Department, and later in the Advertising Department, leaving to take charge of the Purchasing Department for J. J. Little and Ives Co.

He has been with the Goble Company continuously since the Spring of 1916, and for some years has been office manager. His duties in addition to general supervision of accounting and office routine, includes the purchasing of material and preparing the company's advertising copy. He has been responsible for the development of the monthly shop meetings, the success of which has caused nation-wide comment.

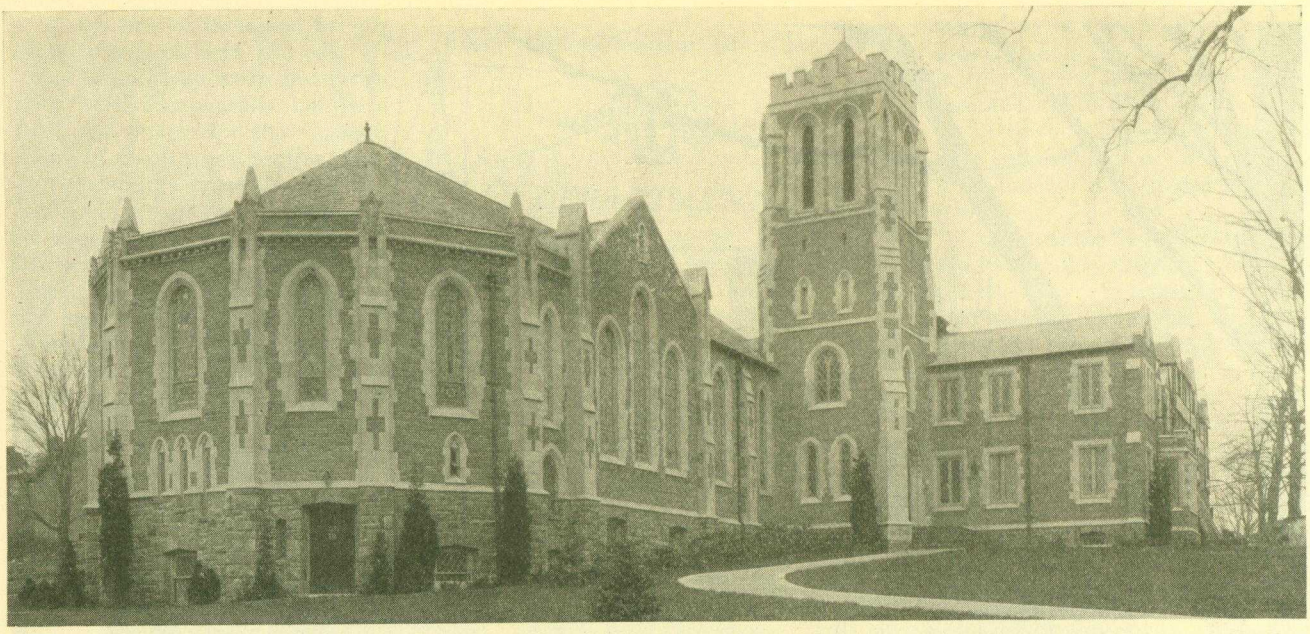
For three years he served as secretary and a year ago was elected treasurer, an office he now holds. His is the responsibility, also, of arranging the financial matters; a job of no small proportions. He is a member of several fraternal societies, active in civic affairs and boy's work and a member of the Rotary Club of White Plains. Last year he, with the other officials, purchased an interest in the Company from Frank N. Goble, who retired from active association in the business.

Charles F. Sanford came to the concern about three years ago and last year was elected as vice-president. He was one of the founders and for many years secretary and treasurer of the former firm of Lieberman and Sanford Co. of New York City, specialists in ornamental iron. He was for 17 years connected with the J. L. Mott Iron Works. Mr. Sanford is active in trade affairs and has been for 11 years a member of the Board of Governors of the Employers' Association of Architectural Iron Workers.

He has had particular charge of dealings with architects and owners in the matter of securing new business and has acted as the contact man with the owners and architects of jobs under construction. He has also handled the financial affairs.

Mortimer Y. Pietschker, secretary of the firm, has been associated since 1921 with the Goble brothers as superintendent of the painting and decorating department, a position he took when he closed out his own painting business of eight years' establishment. He still continues his supervision of this branch of the work, a field in which he is an acknowledged expert.

Frank N. Goble, Inc., stands as a splendid example of



Another Building Which Illustrates the Wide Variety of Work Handled by the Goble Organization Is the First Baptist Church, at White Plains, Edgar A. Josselyn, Architect.

this country's progressive and far-sighted building concerns. In organization, equipment, public confidence and achievement it is fit to take first rank with the country's foremost industrial enterprises.

The monthly meetings have been an extension of the human methods of personnel management, which have paid solid dividends of good faith and team work, besides their acknowledged beneficial effect upon public esteem.

Safety First Methods

One of the shop meetings, each season, is devoted to the interest of safety methods and accident preventions. In the past films, sponsored by U. S. Bureau of Mines, such as: "When Wages Stop, or Safety First in the Petroleum Industries," "Live and Let Live," and "Safety or Sorrow," have been shown.

A talk by the safety engineer of the insurance carrier, covering the State Workman's Compensation Law, its purpose, development and "modus operandi," current changes and approved methods for the prevention of accidents.

Demonstration in first aid to the injured by a troop of Boy Scouts of America, covering the handling and transportation of the injured, bandaging and treatment in cases of typical accidents.

A novel method that has proved effective in keeping the first aid kits in good shape and always properly filled has been by giving each superintendent and foreman a Johnson & Johnson Cabinet inscribed with his name and this he carries with him from job to job. The result of this personal touch has been marked, for each takes a pride in having his kit constantly available, clean and fully stocked.

The cumulative result has been a reduction in the number of accidents and loss of time, resulting in an experienced credit rating granted by the State Rating Board of the Insurance Department.

The company was awarded the Wm. F. Tubesing cup in the national safety contest, sponsored by the Associated General Contractors of America, having the lowest accident record for the year 1927 of any member of the association throughout the United States. For the six months ending December 31, 1927, the company had an average of 140 employes working a total of 134,366 hours, and during this period had but three accidents causing loss of time.

Another instance of the company's attitude towards the welfare of its employes has been the adoption of group insurance. Every employe, after three (3) months' service, has the privilege of taking out a $1,000 policy, the premium for which is shared jointly by the employes and employer. This also carries sick and accident benefit, $10.00 a week for 13 weeks, for cases not covered by the Workman's Compensation Law, such as illness occurring outside of employment.

This has been arranged through the Metropolitan Life Insurance Company of New York.

Armored Car Service

Realizing that payroll insurance was at its best but a pecuniary protection that did not lessen jeopardizing the lives of those paying and receiving cash, Frank N. Goble, Inc., was one of the first contracting firms of Westchester to avail itself of the Cross Armored Car Service. These armed guards in an armored car pay off all jobs and bring to a minimum any danger through a possible hold up.

The plan, too, has proved more efficient than the older methods of paying off and the employe appreciates this protection, while the company feels it has done the utmost in safeguarding its men.

It is interesting to note that many of the employes of the firm have been connected with it over a long period of years and that the labor turnover has been exceptionally small. Frank N. Goble, Inc., has among its hundred employes four who have been with the company more than 20 years; four who have been with the company from 15 to 20 years; 16 who have been with the company from 10 to 15 years; 19 who have been with the company from 5 to 10 years, and 25 who have been with the company from 1 to 5 years. A record to be proud of by both sides.

✣

City Planning

AS a measure of recent civic accomplishment the Civic Development Department of the Chamber of Commerce of the United States calls attention to the fact that 409 cities and towns in this country now have official city planning commissions. It summarizes in its report the methods followed and procedure adopted.

Despite this sudden revival of city planning, John Ihlder, manager of the department, calls attention to the fact that it is as old as the city of Washington. "When we say our present interest in city planning goes back some 15 or 20 years," he says, "we do not mean that city planning in America began only 20 years ago. Some of the earliest settlements, Philadelphia, Savannah, Williamsburg, were carefully planned by their founders."

Engineer-Builder Finds Success in Designing and Building Homes

Rapid Growth of Flint, Michigan, with its Great Automobile Plants, Offers Opportunity

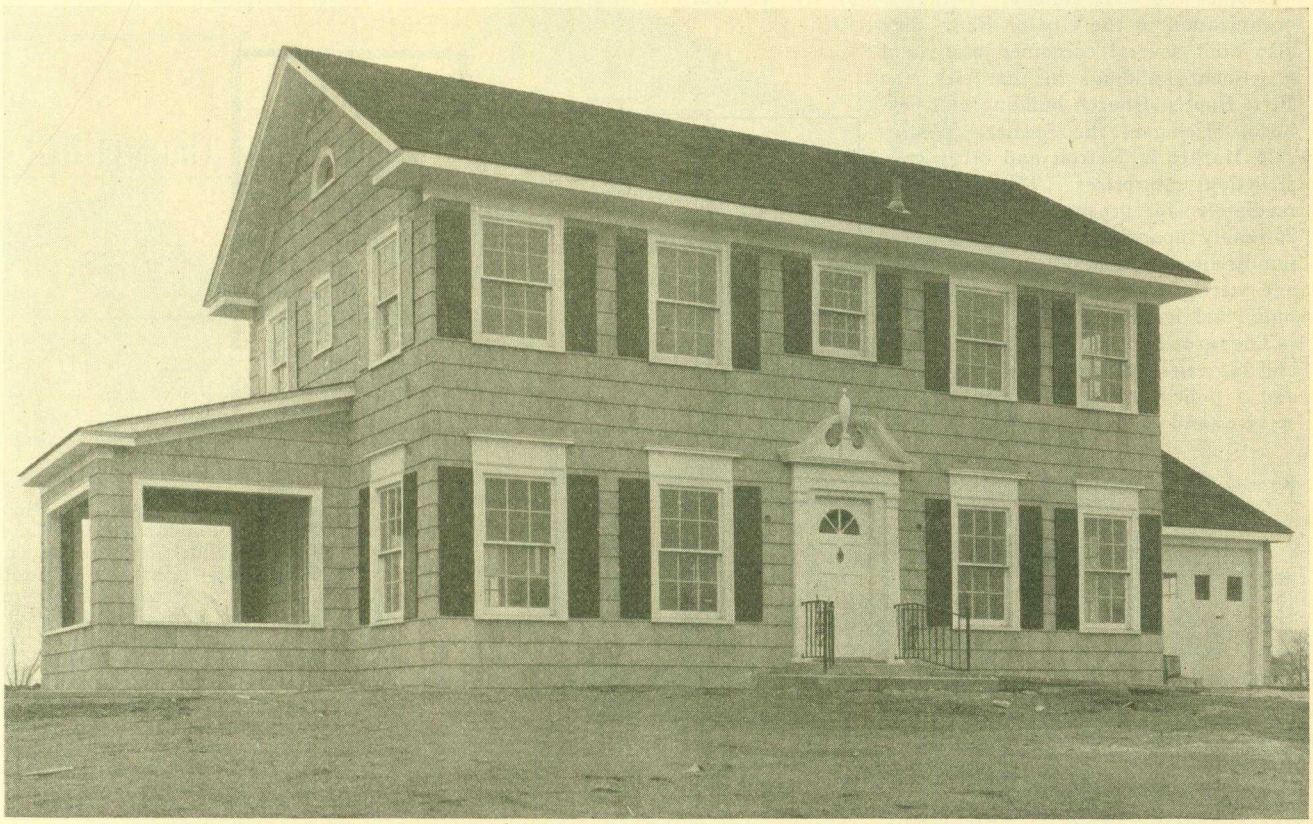
WADE HAMPTON HORN, now engineer-builder of Flint, Michigan, and president of his own construction company, showed his enterprise early in youth by working as a newsboy on the streets of his home town, Columbus, Ohio. The same commendable spirit led him to take a home-study course in bridge engineering after completing his schooling in a Columbus public school, high school and Ohio State University.

It was then his good fortune to secure employment with one of the country's foremost mining engineers and educators—Mr. Frank A. Ray, consulting mining engineer and professor of mine engineering at Ohio State University. In this position with Professor Ray, Wade Horn, then a youth of 19, followed the successive steps of blue printer, tracer, draftsman, detailer, designer, surveyor, field engineer, chief of engineering corps and appraiser of coal mining properties. All told, this first engineering experience, covered a period of 14 years and included the designing of mining plants in Ohio and Illinois and the construction of such buildings as reinforced concrete coal tipples, coal trestles, coal bins, chutes, conveyors, belt conveyors, mine and track scales, mine shaft cages, elevators, foundry plants, machine shops and the calculating and laying out of mine ventilation.

Wade Hampton Horn, President of the Company Which Bears His Name. Mr. Horn is an experienced engineer and brings the thoroughness of engineering methods to the planning and construction, as well as the financing of homes, apartment buildings and stores.

Quite a feather in the cap of the young engineer was his appointment by the United States District Court as one of three appraisers of the Sunday Creek Coal Company's properties, finally appraised at a value of $2,000,000.

Mr. Horn afterwards became chief engineer for the Raleigh Coal & Coke Company and construction engineer for the Wisconsin Steel Company. During this period, he lectured at Ohio State University on various subjects in connection with engineering



Seven-Room House in Flint, Michigan, of Colonial Design, Planned and Built by the Wade Hampton Horn Corporation. The house was completed on January 15th of this year. Floor plans are shown on an adjoining page and reveal a well planned and comfortable interior. The basement plan, which is not illustrated, shows an interesting feature—a "den" with fireplace, as well as separate boiler room, laundry and fruit room.

and mining. Among the most important projects which Mr. Horn carried through at Benham, Kentucky, for the Wisconsin Steel Company and finished up within one year—the agreed time of construction—were the following:

A new 1,500-ton a day mining plant.

Two railroad bridges, each 120 feet long and on the skew.

One hundred fifty-ton railroad track scales.

One mile of standard gauge railroad line.

Five hundred-ton coal bin.

Intermediate impounding coal bin.

One and one-half mile of mountainside tram road.

Inclined plane hoist.

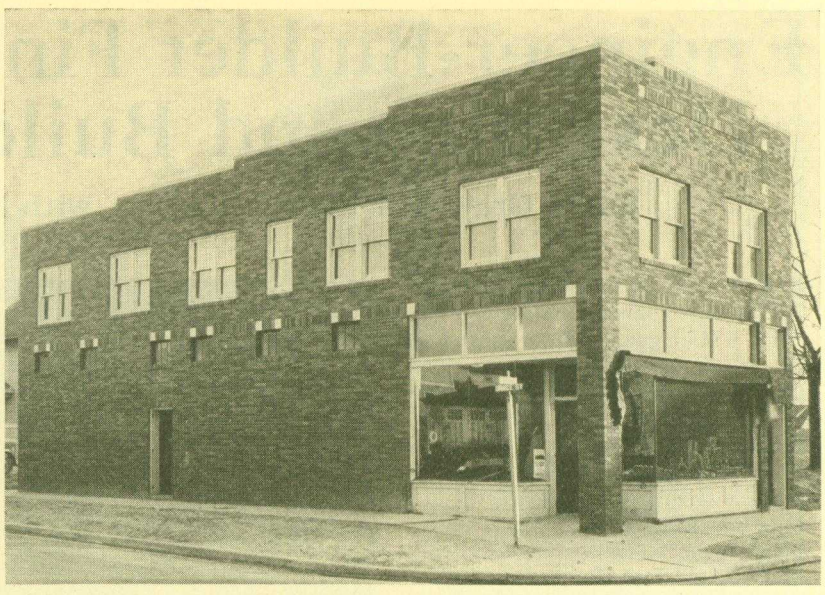
Three miles of underground mine work.

All-steel scraper conveyor.

One thousand two hundred fifty kw. Curtis turbine generator set.

Two hundred houses.

It was in the winter of 1919 that Mr. Horn moved to Flint, Michigan, and decided to enter the building construction field. This was the year of high prices immediately after the war and, the following year, there was a reaction which acted as a brake on building. In spite of these adverse conditions at the outset, Mr. Horn's company has grown into an incorporation which has, during the last few years, erected considerably over a half million dollars worth of homes including between forty and fifty houses, as well as several two-flat and store buildings, a 30-ton refrigerating plant for the Genessee Ice Company and a miniature power plant for the H. S. H. Lunch Company at Highland Park, Michigan, necessary in the preparation of food for 30,000 Ford factory employes.

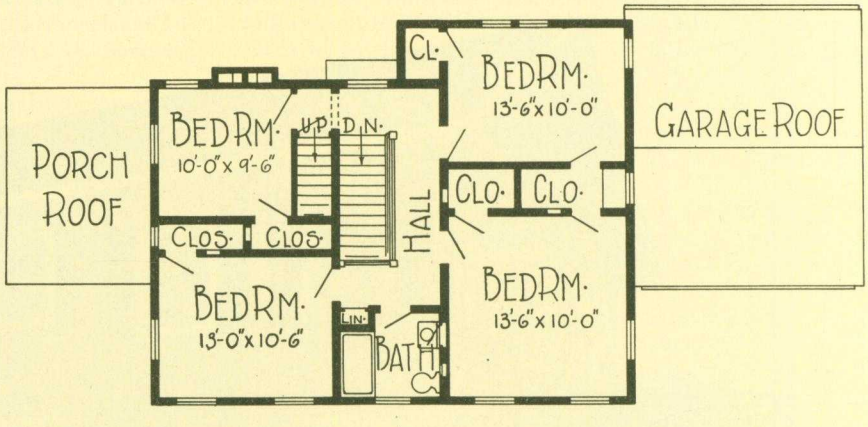


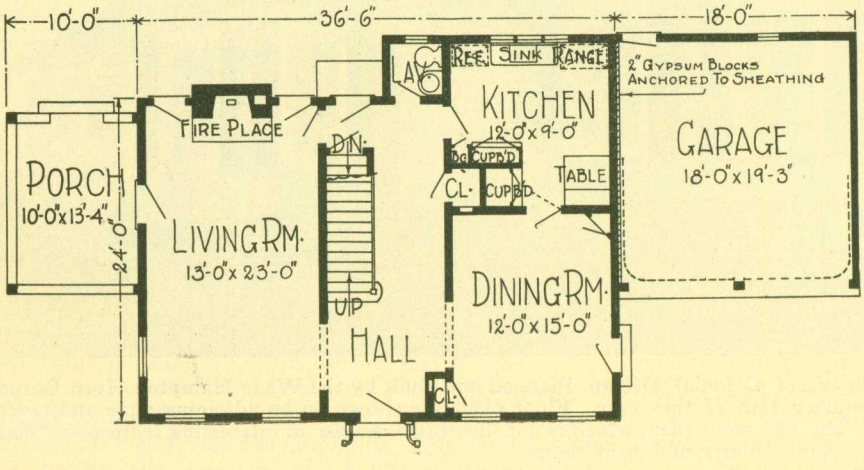
Store and Apartment Building Erected in Flint by the Wade Hampton Horn Company. This building was finished last summer and has a small basement, steam heat, refrigeration, wood floor joists and studs on second floor. It contains two suites of apartments and one store room.

Besides the large number of homes built by Mr. Horn's organization in the city of Flint, they also built several combined store and apartment buildings in that city, the First Baptist Church building at Dearborn, Michigan, the Spencer Wholesale Market in Detroit and other construction enterprises. The work immediately in prospect includes one 26-family apartment building, one 18-family apartment building, a cold storage warehouse and a large number of individual homes.

The growing success of Mr. Horn and his organization is based on merit and a policy of rendering exceptional service and giving exceptional value for the money invested by owners. This service includes design and plans, financing, building and supervision. Mr. Horn, with his engineering training, realizes the value of good design, carefully worked out plans and close supervision of construction. His company, performing a number of services, will earn besides the construction profit, the architectural commission, the financing commission and the real estate commission.

The architectural work is in charge of Mr. John Yeats, a licensed architect, with extended experience both in this country and abroad. He is a graduate of the Aberdeen





Ground Floor and Second Floor Plan of Seven-Room House, the Exterior of Which Is Illustrated on Preceding Page. Living room, dining room and hall are of generous proportions and the kitchen is planned with built-in cupboards and other features for convenient housekeeping. Note the convenient location of the sink under triple windows and flanked by range and refrigerator. The garage has a two-inch gypsum block partition protecting the house wall. The four bedrooms upstairs are admirably proportioned. Besides the bathroom on the second floor, there is a toilet on the ground floor.

Wade Hampton Horn, of Flint, Mich.

Technical College, Aberdeen, Scotland, and an associate of the Royal Institute of British Architects. His work in this country includes a number of years' experience with Coolidge & Shattuck and other prominent Boston architects, besides a year during which he was engaged in the practice of architecture on his own account in the city of Detroit.

Mr. John Hansen, general superintendent in charge of construction, is an experienced building mechanic with 24 years' experience on all classes of construction work.

Mr. Edgar W. Dean, public accountant, of Columbus, Ohio, is office manager in charge of the company's accounts.

The Wade Hampton Horn plan of operation is to refuse to compete with outside architects and to design only those buildings which they themselves will construct. In addition to building for a cash consideration, the company will build a home for any client who owns his own lot free and unincumbered, accepting the deed as first payment and giving back a contract for the completed home. The value of the lot must equal 20 per cent of the value of the completed home.

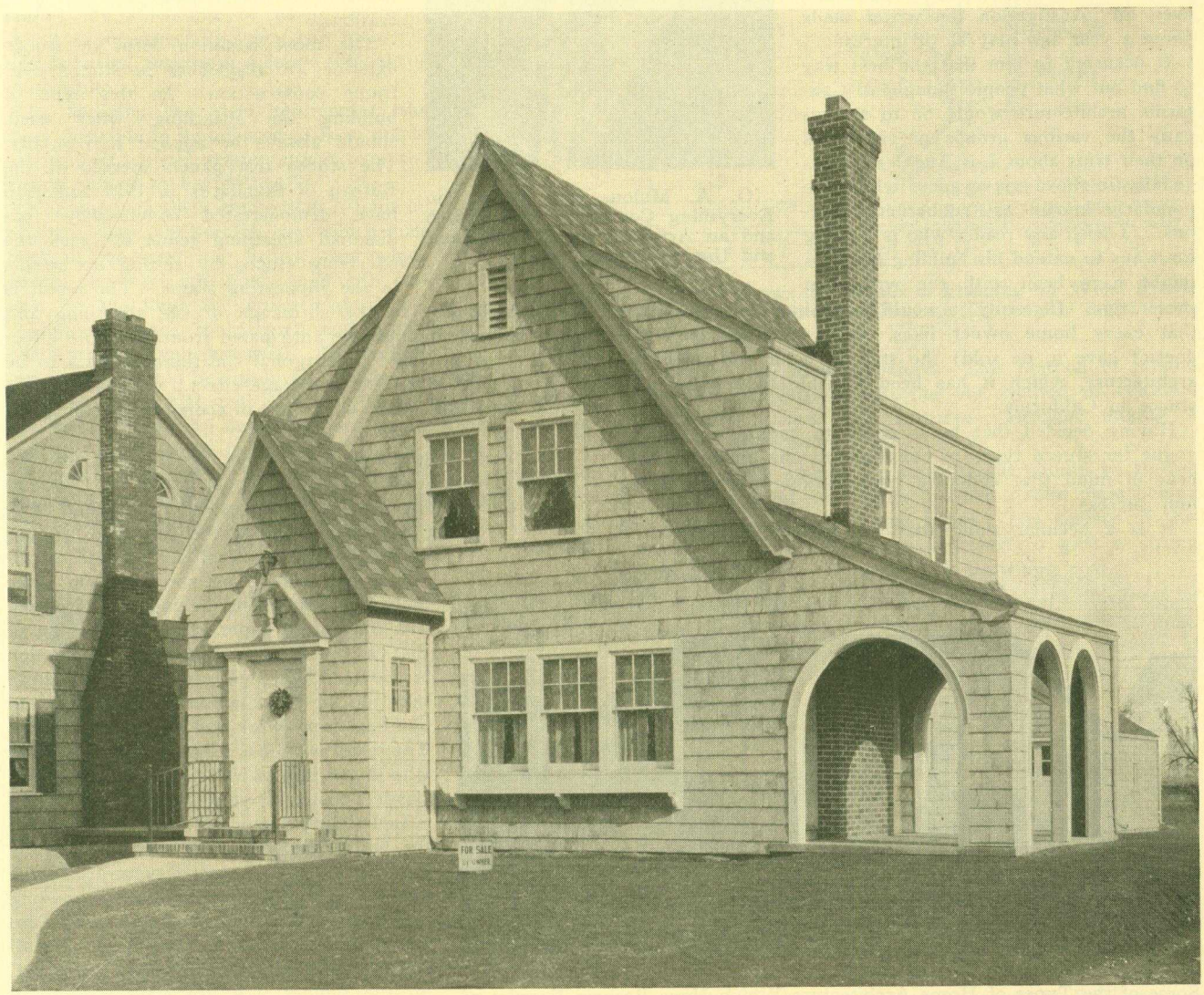
As an illustration, the financing of a $10,000 home would be as follows:

Value of lot	$ 2,000.00
Obtained by the contractor on first mortgage	4,000.00
Advanced by the contractor	2,000.00
Estimated profit to the contractor and realizable to him from monthly payments at rate of $80.00 per month, with interest at 7 per cent	2,000.00
	$10,000.00

A method followed by some builders is to cash the contract by selling it to one of the financing companies which engage in the business of buying contracts. These companies demand at least 16 per cent for discounting a contract and the builder thus loses, on a $10,000.00 operation, $1,600.00 of his $2,000 profit for discount. This latter method may put the owner in the hands of unscrupulous loan sharks who will seize the first opportunity to secure undisputed title to the property should the owner fail to meet his contract payments promptly.

As Mr. Horn points out, the method followed by his company, while it requires considerable capital, yields a much better profit and protects the owner against the contingency named. He also points out that the builder who retains a financial interest in the property over a period of years has more interest in putting enduring value into the building.

There has been marked building activity in Flint during the last few years and the present year will see a still greater volume of construction. The General Motors Corporation is building large new factories in Flint with a view to increasing its truck manufacturing capacity. Large additions to their working forces is bringing many new families into Flint and calling for greatly increased housing accommodations. Besides the homes required for the workmen and provided in group developments, many homes and business establishments will be required elsewhere in the city for officials and clerks and for merchants doing business with the company, its officials and employes.



Attractive Home Sided with Stained Wooden Shingles Which Was Designed and Built in Flint, Michigan, by the Wade Hampton Horn Corporation. The long, steep roof lines suggest an English cottage design. The porch, with its iron railings and graceful millwork ornament, adds greatly to the appearance of this home.

An Opportunity in Stucco

Correct Practice in Applying Stucco is Just as Essential to Success as Good Workmanship is in Any Phase of Building

By O. A. MALONE

TO the builder today stucco offers an unusual opportunity. For there is a distinct trend towards Spanish and Normandy types of architecture which a builder can capitalize by specializing on stucco dwellings.

It is possible, too, with stucco construction, to give an individuality to each structure, a thing that is going to be essential to the builder who would make a big success in the next few years. America, particularly in its cities, has been surfeited with standardized building exteriors, particularly of the bungalow type.

There is a question in the minds of some builders at least as to whether California types of architecture would prove popular in other sections of the country. I think this doubt is rapidly being dispelled by the way in which Spanish and Normandy architecture is taking hold in many places in the country today. However, an investigation the writer made about a year ago may be of interest.

O. A. Malone, an Expert on Everything Connected with Stucco and an Artist in the Development and Use of Colored Stucco.

It occurred to him that the best way to find out what people thought of California architecture would be to accompany the various groups of sightseers on their trips about Los Angeles and its vicinity in those conveyances which are popularly known as "rubberneck wagons." I wish any reader who is looking for ways to extend his building business might have been with the writer on these trips. Certainly it would leave him with no doubt that every home owner likes, wants and will buy (he doesn't have to be sold) the striking color and individual architecture, which it has been possible to achieve with stucco in California.

Having decided that he is going to capitalize the new vogue for stucco types of construction, the builder should bear in mind that enduring construction only will bring him success.

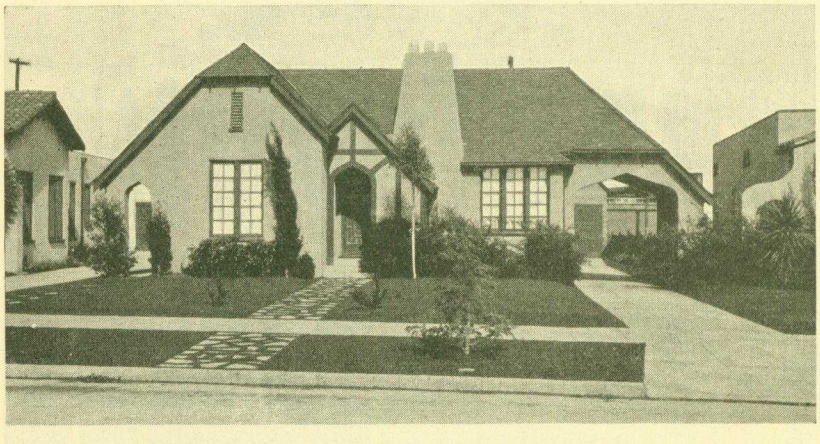
It is a peculiar thing that the public tendency is to approve or condemn stucco without regard to methods or materials used. If a frame building collapses because of poor bracing, the workmanship, not the material, is condemned; but if stucco cracks or breaks, or if the color fades, the same public jumps at once to the conclusion, "Don't build with stucco—it doesn't last," and the builder in that community is faced with a most difficult task in again winning the home-buying public's approval.

For this reason the builder should be exceedingly careful concerning the materials and construction methods he employs. Building a good stucco exterior today is simplicity itself if proved methods are used; but let the builder beware of taking any experimental steps. The writer speaks from a lifetime of experience, for he himself started as a plasterer's apprentice when a boy, and his family have been plasterers for generations.

The most common form of stucco exterior for residences is stucco over frame construction. In this type of building the sheathing, when used, should always be applied horizontally. The stucco test panels erected at the Bureau of Standards in 1915 and 1916 have demonstrated conclusively that diagonal sheathing tends to crack the overlying stucco by setting up strains in the supporting frame. The result is undoubtedly due to the shrinkage of the sheathing and whatever benefit might be anticipated from the more effective bracing provided by diagonal sheathing appears to be more than offset by the shrinkage effect. Of course, horizontal sheathing has an advantage of economy over diagonal sheathing.

The next requirement is a waterproof base for the exterior stucco coat. Apply a good grade of 15-pound waterproof building paper over the exterior sheathing, horizontally, starting at the bottom of the wall and lapping vertical points at least six inches. Horizontal laps should be not less than three inches. Care should be taken in bringing this waterproof paper up to the flashing so that a thoroughly waterproof connection is provided. A small amount of moisture may do a great amount of damage to building frame-work and interior decoration. The result will be a dissatisfied home owner who might just as well have been an enthusiastic booster of your business.

In building a stucco house it is well for the builder to remember that he is really building a stone product structure. In the case of a stucco exterior, frame building this stone wall is about one inch thick. No one would think of building a stone wall an inch thick without thorough reinforcing. So the builder will use steel reinforcing built into his stucco slab to insure enduring



Some of the Types of Home Architecture Which Have Become Popular of Late Years, Lend Themselves Particularly Well to Treatment in Stucco.

service—without cracks, repairs, or other damage.

Now, it would seem that it should be fairly apparent that this steel reinforcement should be placed near the center of the slab. The reader would probably be surprised at the number of years before we learned to make certain of this first essential.

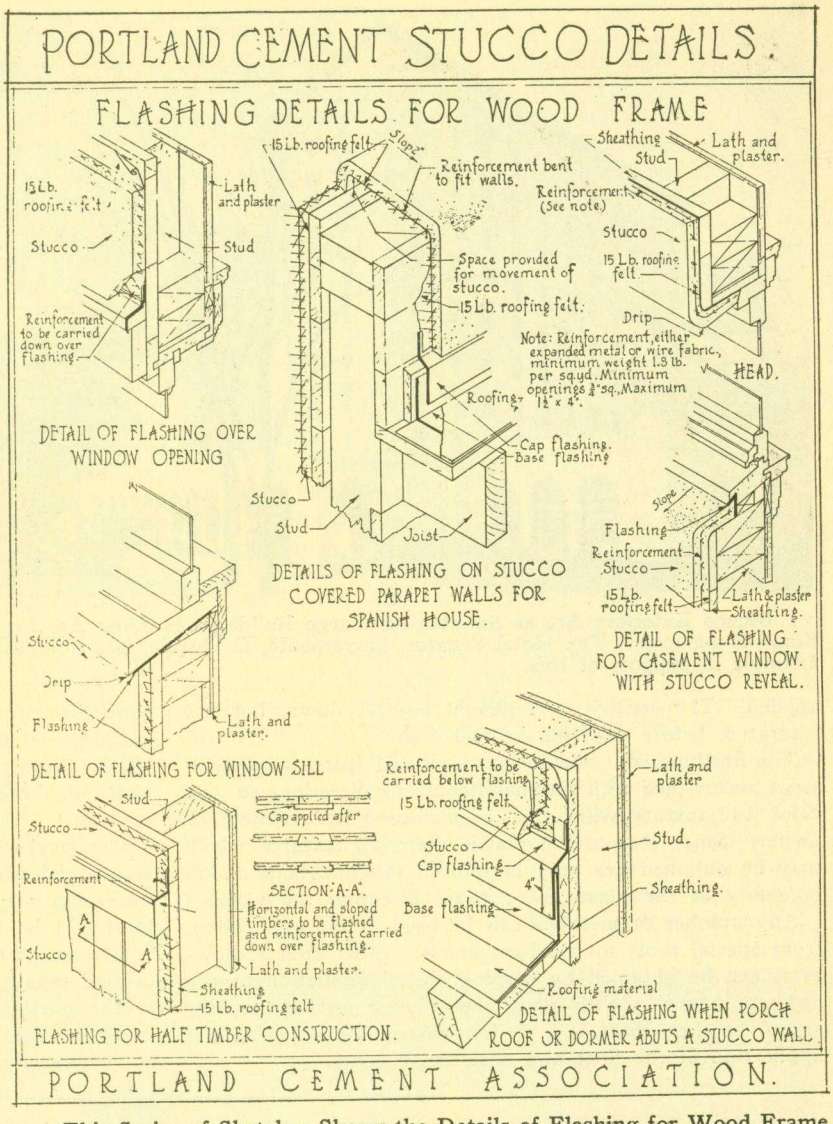
Certainty on the location of the steel reinforcement is secured by the use of a metal clip behind the nail which fastens the steel reinforcement to the frame work. As shown in the illustration, this clip is so arranged that it holds the steel ¼ of an inch away from the sheathing. There are several such clips on the market today which will give good service. In using them it is well to pick a design which does not break the paper. Both clip and nail should be thoroughly galvanized.

The steel itself should be of a form that provides large openings so that the plaster cannot help but force the first coat of portland cement through these openings up against the waterproof paper, giving an unbroken coat of portland cement back of the steel reinforcing. My own terms for such large opening reinforcing has been "foolproof" reinforcement. Any builder knows the advantage of using foolproof construction especially when the construction is buried, making inspection difficult or impossible.

In applying the steel reinforcing, the main principle to be adhered to is to create a continuous metal reinforcement over the entire surface to be plastered.

The one-inch thick stucco slab is built up of three coats, the scratch coat which goes back of the steel, the brown coat which covers the steel and gives a smooth surface for the final, the finish coat.

Uniform mixes for scratch and brown coats are positively essential. The following system should be employed to avoid the variation occasioned by the usual method of mixing so many shovels to the sack. Provide a one-cubic foot measure box. Put in mortar box 18 cubic feet of sand and level off and mark on mixing box. Add five sacks of portland cement and one 50-pound sack of hydrated lime. Mix together, dry, before adding water. In succeeding mixes, shovel the sand into the mortar box to the level marked by first mix and add cement and lime as before. This method of mixing is no more expensive than the old method of counting shovels and is far more accurate. Machine mixing is always to be recommended.

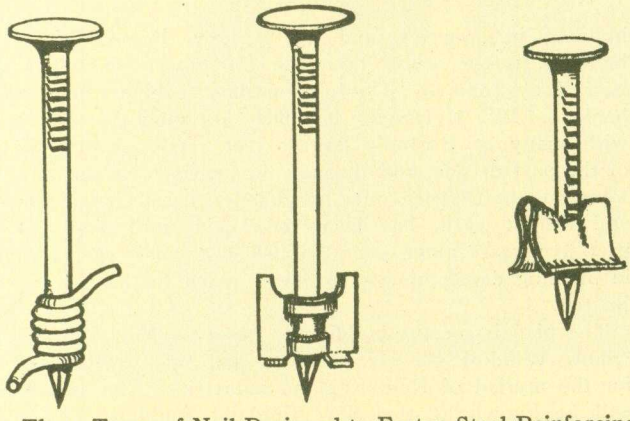


This Series of Sketches Shows the Details of Flashing for Wood Frame Construction as It Should Be Handled to Obtain a Thoroughly Satisfactory Stucco Finish That Will Last.

As previously stated, the scratch coat should be shoved through the metal reinforcing to form a solid mass behind the steel against the building paper. The surface of this coat should be heavily cross-scratched to give a strong mechanical key for the second or browning coat.

This browning coat should be put on to a thickness of at least ½ inch over the first coat so that the steel reinforcement is thoroughly embedded. Through the use of the metal spacer which holds the steel reinforcement away from the sheathing and the large openings in the steel reinforcing itself, the application of the stucco coats becomes literally an act of pouring portland cement back of, into and around the steel reinforcing. This leaves the steel reinforcing where it belongs, in the center of the slab, where it gives maximum support and receives maximum protection.

The surface of the browning coat will depend on the surface desired for the finish coat. It may be rodded straight and true in every direction, or it may be left untrue to give a wavy effect. If the weather is hot and dry, this coat should be wet down for at least three days and allowed to become perfectly dry before the finish coat is



Three Types of Nail Designed to Fasten Steel Reinforcing so That the Reinforcing Will Be in the Center of the Stucco Slab.

Stucco Exteriors Are as Suitable for Large Buildings as They Are for Small Bungelows. The Hotel Senator, Sacramento, California, is a notable example in support of this.

applied. The scratch coat should be wet down, but not saturated, before applying second coat.

The finishing coat should be of colored stucco applied in strict accordance with the manufacturer's directions to give color and texture which has been chosen by architect or owner. Since stucco is a plastic material, textures which may be obtained are only limited to the imagination and ingenuity of the plasterer or those directing the work.

Any number of methods can be used in the application, from special tools to the bare hands. Most effects, however, can be obtained by varying the manipulation of the ordinary trowel. With all of the colored portland cement stucco finishes, there is a written instruction covering the application of the float and dash finish coats.

It is advisable, if the builder or his plasterer has not had extensive recent experience with the application of colored stucco, for the builder to get in touch directly with the manufacturer of the portland cement stucco finish so he may thoroughly study the methods required to give the texture desired in a practical way at ordinary working speed. This is essential if he is to make a reasonable profit from his work and charge fair price to the building owner.

The manufacturers of portland cement stucco finishes will make up samples of colored stucco so that an exact color and texture may be chosen for the building under consideration. This sample can be retained and shown to the different plaster contractors, thereby allowing them to bid intelligently. What is more, these plaster contractors can also avail themselves of finish coat technique experience which is available at the manufacturers, so that they do not gamble in making their estimate.

Because of the extreme importance of these particular steps it might be well to sum them up once more:

Each coat of plaster must dry thoroughly and be given all the time possible between coats in order that shrinkage and checking may take place before the next coat is applied.

The steel which serves as a reinforcement to the thin stucco slab should be near the center of the slab to give maximum strength and to receive maximum protection. It should be made continuous over the entire surface to be plastered by seeing that joints are well lapped and nailed or tied together. The steel should be thoroughly encased in the portland cement plaster so that there is a solid, unbroken coat of plaster back of this reinforcing as well as in front of it.

World's Largest Building to Be Erected in Boston

Blackall, Clapp and Whittemore and Charles Nelson Meserve, Architects—Densmore, LeClear and Robbins, Consulting Architects—Fay, Spofford and Thorndike and Charles R. Gow, Consulting Engineers—Fred. T. Ley Construction Company, Builders

GROUND was broken in January at Boston for construction of the world's largest building, which will cost $21,000,000 when complete, will cover 130,000 feet of ground area and will be 25 stories high, with a center tower 300 feet in height. Some ten acres of the floor space will be occupied by a mammoth department store, one of the largest in the country, and the finest in America in point of equipment as well as time and labor saving devices. Five more floors above this will be given over to a permanent industrial exposition of New England industries, and a large exhibition hall. Above this will be offices, clear to the top floor of the tower.

Only a portion of the huge area of the first five floors will be used by the department store, but there will still be sufficient space left for at least 20 large specialty shops, restaurants, and other stores. W. J. McDonald, who promoted the Park Square Building, the sixth largest office building in America, and up to now, Boston's largest building, is the active figure in the enterprise, which is backed by some of Boston's foremost business men and bankers. Mr. McDonald has been prominently identified with many of Boston's largest real estate developments of the past decade, and through him what is known as the Park Square District, once an abandoned railroad terminal and freight yard, has been developed until within the past five years alone over $105,000,000 worth of property in building developments has been added to the wealth of Boston.

The plan is for the building to serve as New England's "Show Window"—a great display and sales headquarters for the myriad of New England industries. The structure will be known as the New England Building, and the department store, also backed by the same interests, as the New England Department Store, Inc. Preparations

leading up to the announcement of this huge building project have been in preparation for more than two years.

Its location is close to the new Statler Hotel, the Park Square building opposite, and one block from the Public Garden. The building will be connected with the subway system by an underground tunnel about two blocks long. There will be three basements, two of which will be devoted to parking space for some 3,000 to 5,000 automobiles daily, the owners of which drive in, leave their cars and then take elevators to the stores or offices above. The department store will also be connected by an underground tunnel with a warehouse located some distance away, from which goods will be brought by electric trucks to the basement of the store, when needed. The warehouse will also provide a remote delivery service that will help keep nearby streets free of traffic congestion. Another feature will be direct connection from the store by means of this tunnel and warehouse to the building's own spur track a few blocks away.

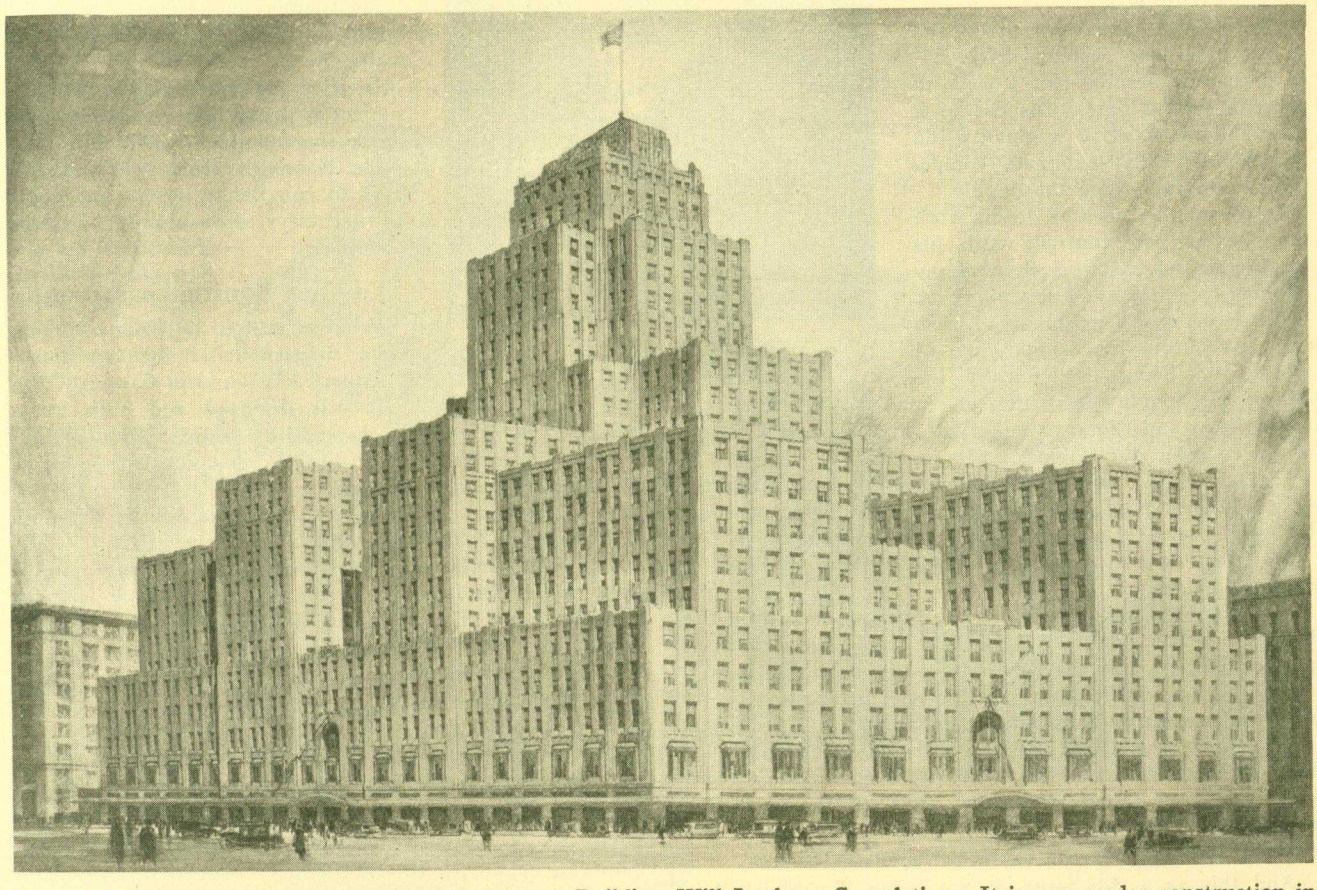
Because of the great area of the site selected for this building, which will be surrounded on four sides by broad streets, it has been possible for the architects to plan a building both modern and monumental in character, with a central tower reaching to a height of 300 feet, yet with less total cubic content than that permitted by Boston building height regulations for a building site of this size. Thus, the building gains greatly in distinction without having the skyscraper tendency to increase street congestion by concentrating too many people on a small ground area. It is estimated that when the building is fully occupied, its permanent population will be close to 20,000.

This building will surpass in total floor area all other buildings in the world, including such famous structures as the General Motors Building in Detroit, the Graybar, Telephone and Equitable Life Buildings in New York. It will have a frontage of 272 feet on each of two streets and 476 feet on two others.

The exterior construction will probably be of light brick, with light stone trimmings. An idea at first was to have the entire outside construction of white Vermont marble, but owing to the flood destruction in that state, of railroad track and highways, as well as much industrial equipment, it was found impracticable to attempt this, as sufficient of the facing stone could not be delivered within the six months set as the time limit. Construction is to be completed within a year. Further details as to materials, equipment, etc., are to be announced later. Had it been possible to use marble for the facing, the building would have been wondrously beautiful. As it is, the architecture is of a most impressive style, whether viewed close at hand or from a distance. In such a building as this, plumbing, wiring, heating pipes and finish will be measured in terms of "mileage" rather than footage.

Fred. T. Ley, president of the Fred. T. Ley Construction Company, Springfield, is one of the directors of the project, and will handle the general construction contract. W. J. McDonald is president of the New England Building, Inc., and headquarters, until the building is completed, have been established in the Metropolitan Building, another McDonald promotion. The architects are Blackall, Clapp & Whittemore, and Charles Nelson Meserve. Consulting architects are Densmore, LeClear & Robbins; consulting engineers, Fay, Spofford & Thorndike and Charles R. Gow.

With the great developments in this district during the past five years, the New England Building, the new $10,000,000 Boston & Maine Terminal, replacing the old North Station, the Printers' Building and a number of others, Boston will have added close to a quarter of a million dollars worth of new structures of large size to her improvements in less than a decade. F. N. HOLLINGSWORTH, A. N. S.



This Picture Shows How the World's Largest Building Will Look on Completion. It is now under construction in Boston and will cost $21,000,000. The ground area of the site contains 130,000 square feet and the building will be 25 stories in height and contain a permanent population of 20,000 people.

A Business Builder Builds Homes

Man Power, in the Person of G. P. Blackiston of Canton, Ohio (and Elsewhere) Has Produced Marvels

MOST of us, in our own profession or specific line of work, have about as much as we can comfortably attend to.

But when a man, holding down forty-two individual positions with as many firms in various sections of the country, adds, as his hobby, the jobs of architect, builder, contractor and owner of large buildings, we begin to wonder whether we are really in high or low gear.

An analysis of the methods employed by this individual may be of interest—if not a stimulant to many of us.

G. P. Blackiston is the name of this demon for work.

Characteristic to his reputation of being unusually original, he has his winter offices in the centrally located city of Canton, Ohio, and his summer offices on the cool and picturesque shore of Lake Waramaug, Conn.

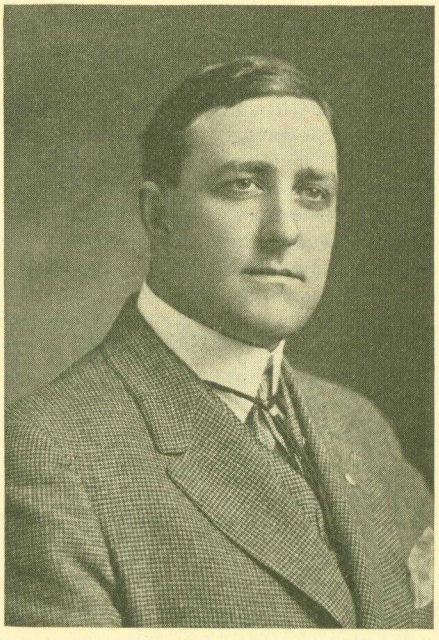
He is employed as sales promotion manager of 42 large, well-known individual manufacturers, each in a different line of business. He has his office and department in each, be they in Chicago, Detroit, Boston, New York, Birmingham or St. Louis.

He knows every salesman of every firm and works hand in hand with them. He paves the way—secures a request for an interview for each—follows up their calls—makes their calls productive.

When asked how he could do all this with the ease with which he does, his reply was:

"Know what you want to do and do it. Harness system—drive it—never handle a subject or a piece of paper a second time. Dispose of it then and there. Use originality—do things differently—eliminate competition. Do everything thoroughly."

So thoroughly does he do his work that he has no contract with his employers and has worked for many of them for fifteen and sixteen years.



G. P. Blackiston, Builder of Businesses and Builder of Homes.

But in order to keep his mind fresh and away from his regular line of work, and being mechanically inclined, he bought properties up in Connecticut and began to build with his own hands attractively designed log cabins.

He hewed the logs, snaked them to the job, built the houses, wired them himself, did the plumbing, painting, built the fireplaces and furnished them completely.

He then rented them to the rich New Yorkers for summer lodges.

So profitable and interesting did this become that he began to make a business of it and today his real estate division is known as the Blackistons (for no better name).

He has his architectural draftsman, his engineer, foreman and maintains a building crew the year around.

Mr. Blackiston attends to every detail of this business, lays out the details of every building, oversees the designing, makes up all specifications, buys all the materials, employes all the men, personally superintends every job, rents all the buildings and oversees their maintenance.

And this as a side issue—it not being his regular line of work.

He has just finished the very unusual, complete and attractive La Casa Bonita Apartments in Canton—a very exclusive, high priced, Spanish apartment.

In spite of the fact that every apartment building in that city has many empty apartments, through the live wire, systematic personal methods employed by Mr. Blackiston, everything is rented in La Casa Bonita.

The Blackistons have just completed plans for a very remarkable building in Canton, consisting of garages in the basement, 12 stores on the first floor, two floors of offices, three floors of apartments and one floor of club rooms.

It is a brick and cement structure—fireproof throughout—of Americanized Spanish architecture—known as the Blackiston type of architecture, due to its individualism.

Mr. Blackiston has a most complete file on buildings and building materials.

Living for a few months in each of his own buildings, he claims, is of great value to him, as he is able to notice every detail.

As a result he has eliminated items not noticed by the average builder, but which are appreciated by the average tenant when eliminated.

As an example—the noise in closing a casement window using the average standard adjustments—the click of the average toggle switch, etc., etc.

Elimination of sound is another of Mr. Blackiston's hobbies and studies.

He carries on extensive tests for killing of sound in water pipes, in walls, floors, etc.

In short he possibly goes into the subject as deeply, if not more so, than the average builder and architect.

He claims it requires about two days to completely design and make all necessary drawings for a large building.

La Casa Bonita Apartment

What is said to be the most complete, modern and unique apartment in America is found in Canton, Ohio.

It was designed and built for a definite type of patron—the wealthy couple (without children) or individual who wishes a real home with none of the ties and inconveniences.

Naturally it had to be unusually rich, beautiful and modern to the extreme to appeal to this class of patrons.

It is built on a corner—the side street having quite a grade while the front faces on the street which is level. Mr. Blackiston, the designer, builder and owner, accordingly turned this otherwise unfavorable condition into an asset by placing his garages in the basement.

The apartment consists of four suites of five rooms and bath, a lobby, large, well lighted and airy laundry and lockers, an extra or overflow guest room and a garage for five cars.

The building is of fireproof construction—steel, tile and cement being the materials from which it has been built.

As can be noted from the cuts, the general appearance of the exterior is that of a Spanish home—not the usual apartment. However, each apartment has two porches with attractive French doors opening onto them.

You enter the attractive lobby with its striking Spanish benches, flower stands and chairs. On the wall is a very striking fountain—the floors are of impressive tile, the walls and ceilings are arched to a central point—the finish being rough, artistically tinted plaster.

The doorway to the stairs is up two steps, where there is a landing or inner vestibule from which the stairs begin and the entrance to the other lower floor apartment opens.

The banister is a colorful red silk rope cord attached to the artistic walls by brass rings. In the risers of the curved cement stairs are carelessly inserted here and there unusually colorful odd tiles—giving the whole a most foreign atmosphere.

At the top of the stairs in the center of the wall is inserted a large round colorful Spanish coat-of-arms. On each side of the landing—up one step—are the arched doors to the respective apartments.

The individual apartments are romantic to the extreme—a sight of which one never tires.

The entrance is into the living room with its rough plaster effect, artistically painted in tones of warmth and personality.

The quaint, truly foreign fireplace of cement with its raised and oddly shaped hearth is located on the inner walls. Large French doors open onto the balconies or porches and the especially large casement windows give unusual light into this interior. A generous sized guest closet is also provided for.

The doorways as well as windows are unusual in their treatment—no visible casing being present—the walls bull-nozing or curving in an original and striking manner to form a beautiful setting for the doors or windows.

Each window is provided with the invisible roll fly screen.

The lighting fixtures are unusually original, being forged iron wall brackets extending from the baseboard up the wall in graceful twists and opening into a most attractive spear-pointed fixture.

The floors are cork, laid to represent old-fashioned plank floors with the nail pegs visible and with a colorful tile roughly placed here and there.

The bedrooms (one of which is a corner outside room) have large windows and closets. They, like the rest of the house, are finished in the rough plaster effect except that a very unusual treatment, an invention of Mrs. Blackiston, is given the bedrooms. The walls curve or blend into the ceiling—no rail or rope being used. The floors are cork tile with the old-fashioned plank effect.

The bathrooms are most colorful—a different color effect being used in each—one is an old rose, another green, another yellow, etc.

The doors from the respective bedrooms open in the center of both sides. On one end back of the doors and away from the window is the built-in bath with tile to the ceiling. Contrasting colored moire bath curtains against the brilliant colored tile makes a most striking effect.

On the side towards the window are the pedestal and toilet. Large imported Venetian glass mirrored medicine cabinet is above the pedestal.

All the bath accessories are in black tile.

A utility electric socket is beside the pedestal.

This half of the room is tiled only four feet—the remainder of the rough plastered wall being beautifully tinted to harmonize with the color of the tile. A very unusual arch effect separates this section of the bathroom.

A large linen closet is artistically provided for in the hall back of the bathroom. A sanitary clothes chute to the respective lockers in the laundry is also provided for in a concealed manner in the hall opposite the entrance to the bedrooms.

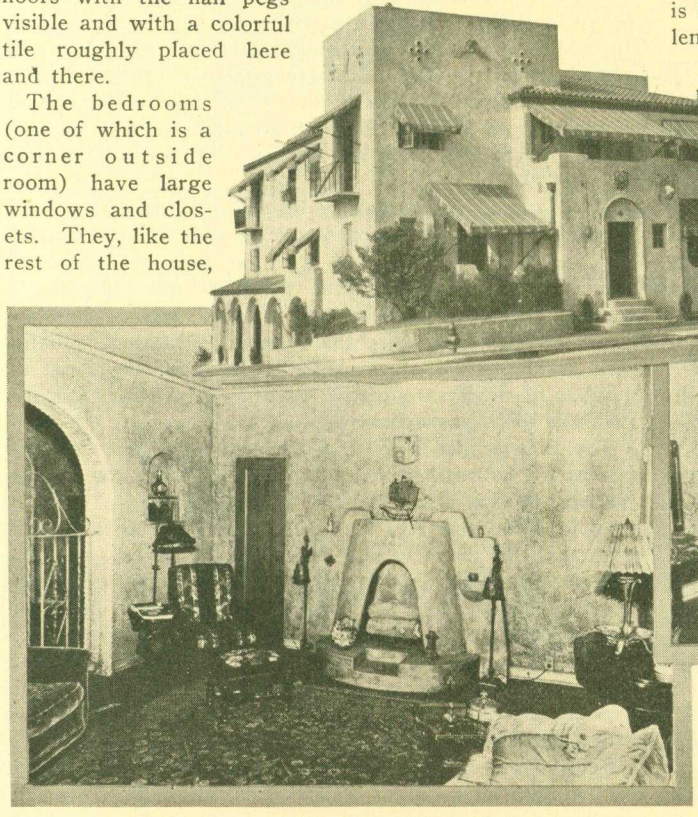
In the basement are four very large lockers, each having a window in it. A scientific, airy and bright laundry is provided with gas clothes dryers, three tray tubs, etc.

The central refrigerating compressor is also in the basement, which is laid off for all the mechanical devices such as the incinerator, automatic water heater, water softener and the gas-burning vacuum heating plant.

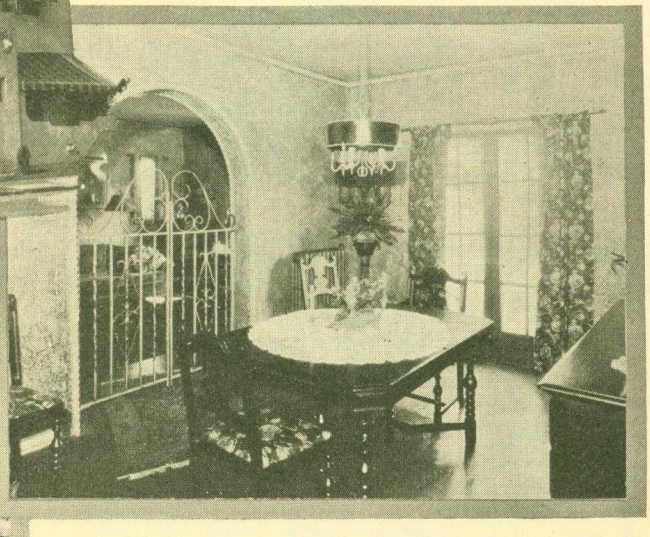
A toilet for a maid is also provided.

An extra bedroom completely furnished for overflow guests with private toilet is also provided for the convenience and comfort of the tenants.

An extra garage is supplied for the same purpose. These are all under one-half of the building. Under the other half is the five-stall garage with a raised walk running the full length which serves as a bumper and a means for the tenants to walk to their cars without rubbing against or climbing over the cars.



View of the Living Room with Its Specially Designed Fireplace.



La Casa Bonita, Canton, Ohio, Designed, Built and Owned by G. P. Blackiston. Above is a view of the exterior and a photo of the dining room.

COLORKEED HOMES
FOR STYLE AND VALUE

A Free Information Service for Home Planners and Home Builders

THE ColorKeed Home Plans presented in this magazine have many special points of excellence which are of particular importance and timeliness to those of our readers who right now are facing the home building question—with its joys and its problems.

We illustrate these home designs and show the room arrangements, but our space for description is so limited that we are not able to cover all points. We know there is much additional information desired by subscribers about to build, which would be very valuable to them. Since we have all data pertaining to these ColorKeed Homes, both in this current issue and in previous issues of the American Builder, we are glad to offer our readers a free service of information, whether questions pertain to the estimated cost, the method of construction, suitable materials to use, special equipment or features, or any other information whatsoever.

Limited space in the magazine prevents publishing all this information; but if you will write American Builder Home Planning Service, 1827 Prairie Ave., Chicago, we will be very glad to give you direct by mail any information desired.

✣

1928 Prospects Bright Say Dealers

BETTER conditions in the construction field for 1928 are indicated in opinions of 1,663 building supply dealers, in 11 Middle Western and Northwestern states. These dealers replied to inquiries sent out at the beginning of the spring building season by the Universal Portland Cement Company, of Chicago, giving their opinions as to the construction outlook.

The dealers' replies, tabulated by classes of construction, show a uniform tendency to anticipate improvement in farm construction. In eight of the 11 states dealers feel that general increases in residential building of all kinds are assured. They expect little change in volume of commercial, industrial and public building construction.

Dealers consider prospects good for an increase in the amount of highway paving done in 1928 as compared with 1927. They expect highway construction and increased farm business to more than offset slight decreases seen in street and alley paving.

On the whole, the replies mirror an optimistic feeling. The dealers report that they are prepared for a 1928 which promises a total volume of construction business equaling or exceeding last year. ✣

Increase in the Sale of Insulating Boards

THE consumption of rigid insulating boards is increasing rapidly, as indicated by a survey conducted by the Department of Research in Lumber Retailing, Antioch College, Yellow Springs, Ohio, and the Ohio Association of Retail Lumber Dealers, which finances this department at Antioch. The survey covered the Central States, in part.

In this territory, basing the figures on the total number of dealers reporting, only 32½ percent handled insulating board in 1925, 60 per cent in 1926 and 72 per cent in 1927. In addition a small percentage of those reporting have placed orders for 1928. Therefore the year 1928 will show another increase. These figures show an increase of 83 per cent from 1925 to 1926, and an increase of 30 per cent from 1926 to 1927, and an increase of 144 per cent from 1925 to 1927.

The volume of insulating boards sold from 1925-1927 exhibits a steady increase; for taking the number of square feet handled in 1925 at 100, then the figures 148 and 208 represent the volume of sales for 1926 and 1927, respectively. The increase from 1926 to 1927 was 48 per cent. Again, if 100 represents the number of dealers handling rigid insulating boards in 1925, 183 and 244 represent the number of dealers reporting handling insulating board in 1926 and 1927, respectively.

The returns also show that in localities where complete figures were furnished and where in 1925 only a small percentage of the retail dealers in business were handling insulation and where in succeeding years additional dealers had taken on the new line no falling off in any case was indicated, showing that generally as the number of dealers handling the product increased the business in insulating boards kept apace. As a whole the average amount sold per dealer has shown no increase. The reason for this is no doubt due to the fact that in 1925 the dealers reporting were located in large cities while in 1927 the country yard with a small consumption had taken on the product.

Retail lumber dealers as a class are not unfavorable to the handling and use of wall boards, although there is a small minority of dissenting voices who hold to lumber. This class is rapidly disappearing.

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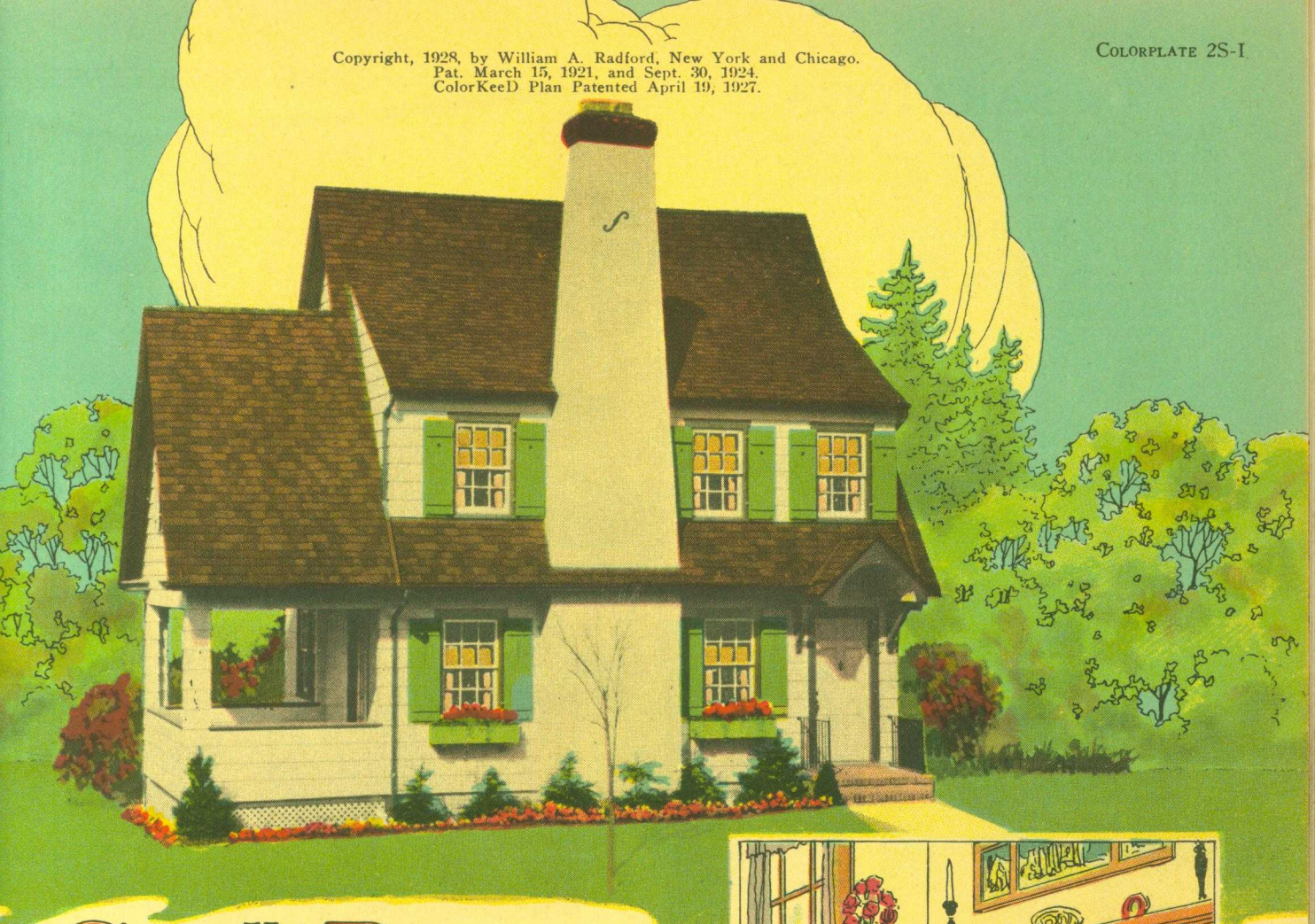
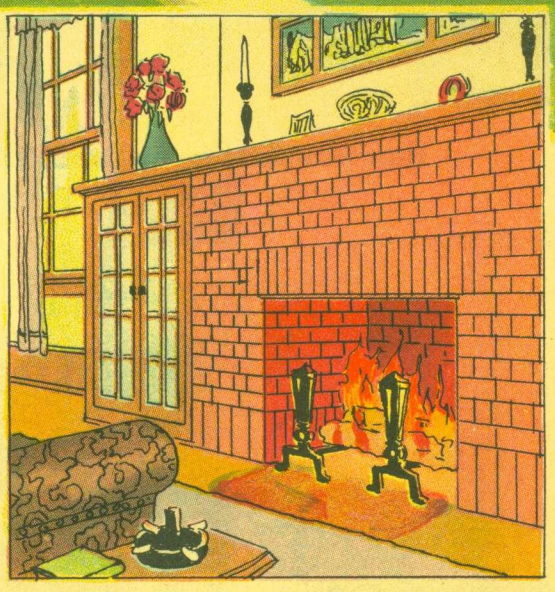
Pat. March 15, 1921, and Sept. 30, 1924.
ColorKeeD Plan Patented April 19, 1927.



COLORKEED HOME PLANS
TRADE MARK

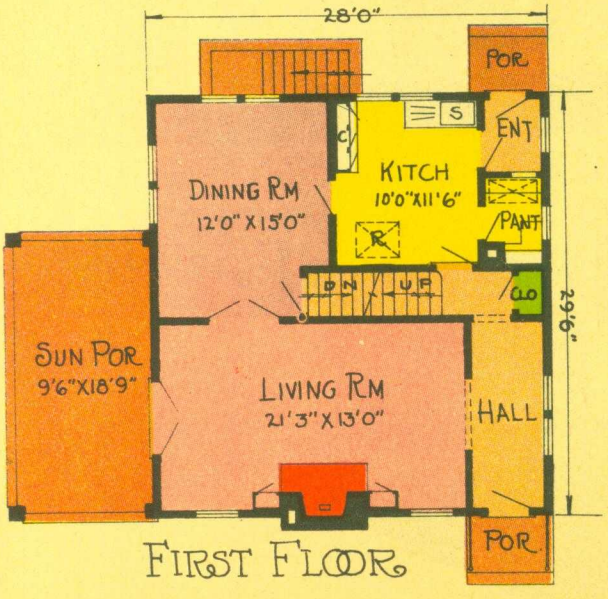
- LIVING ROOM
- DINING ROOM
- KITCHEN
- PANTRY
- HALLS
- CLOSET
- BED ROOM
- BATH AND LAV.
- PORCH
- ROOF

The SALISBURY

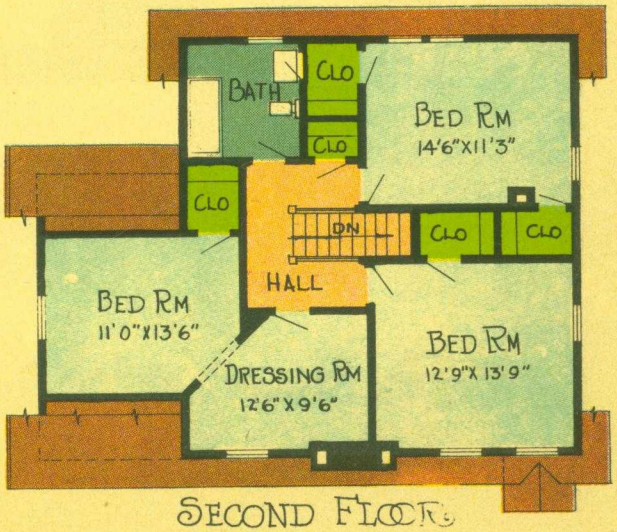


THE wide white clapboard siding, the prominent fireplace chimney and the interesting roof of the Salisbury combine to make this an unusually attractive design. On the first floor are the living room, the dining room and the efficiently arranged kitchen. On the second floor are three unusually attractive bedrooms, one of them with large dressing room. This is a compact, economical home measuring 28x29½ feet not counting the open porch projection.

The color sketch to right gives an idea of the attractiveness of the bookcase-flanked fireplace in the living room.



FIRST FLOOR



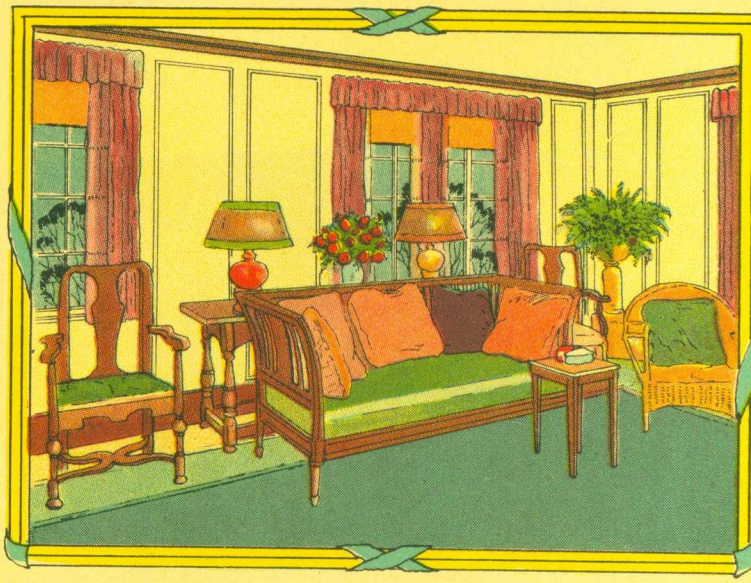
SECOND FLOOR

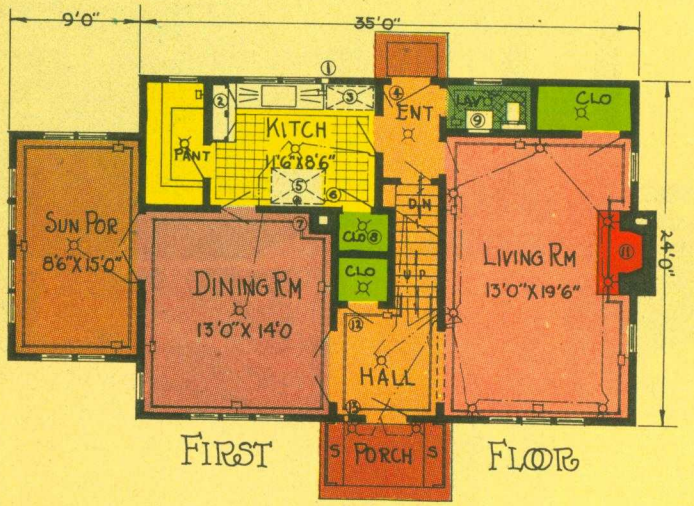
The SARATOGA

A PRETTY Colonial design with roof dormer of a distinctive and "different" sort. Six rooms, sun parlor and bath, besides numerous closets, lavatories, pantries, etc., are provided in this home 24x35 feet.

Key to Equipment

① Ventilating Fan
② Kitchen Cabinet
③ Mechanical Refrigerator
④ Package Receiver
⑤ Gas or Electric Range
⑥ Incinerator
⑦ Thermostat
⑧ Broom Closet
⑨ Medicine Case
⑩ Wardrobe
⑪ Fireplace Throat and Damper
⑫ Mirrored Door
⑬ Built-in Mail Box
⑭ Disappearing Stairs to Attic
⑮ Linen Closet
⑯ Tub Shower
Weatherstrips
Storm Sash
Screens
Lighting Fixtures
Convenience Outlets
Electric Panel
Washing Machine
Ironing Machine
Clothes Dryer
Radiator Covers or Furniture
Coal Chute
Heating Plant
Oil Burner
Water Supply System
Hot Water Supply
Water Softener
Radiant Gas Heaters
Electric Wall Type Heaters
Casement Windows
Dishwashing Sink
Automatic Cellar Drainer





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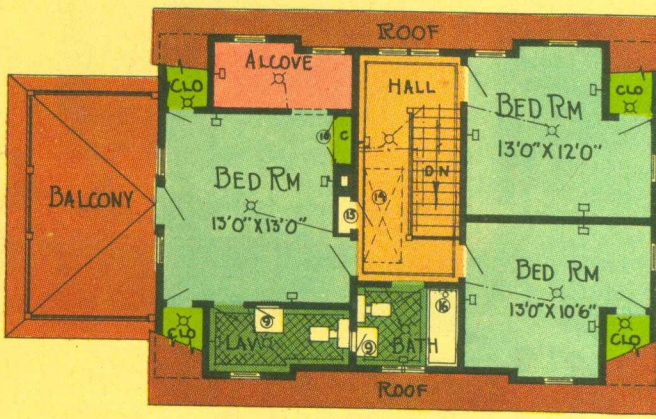

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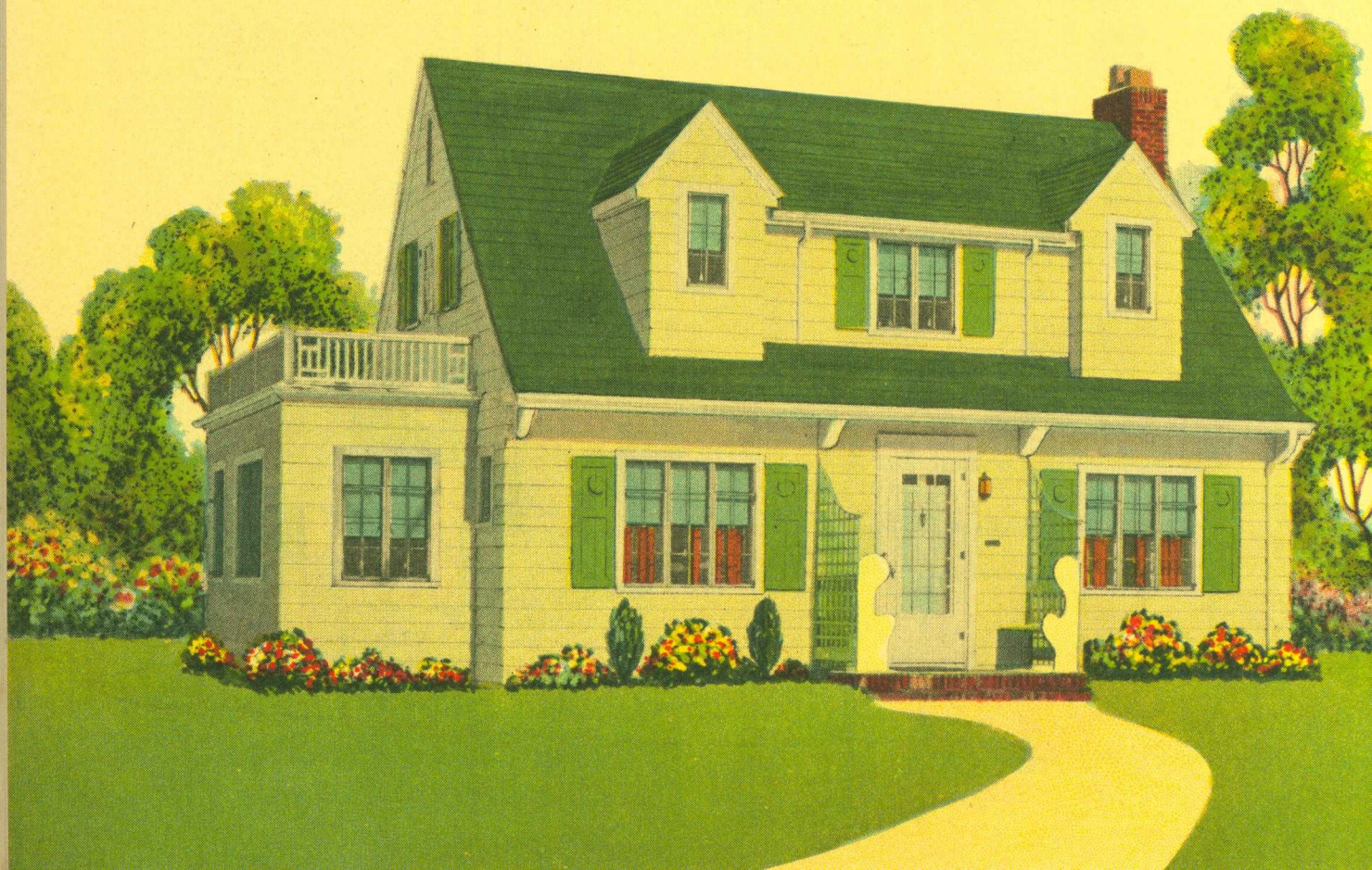
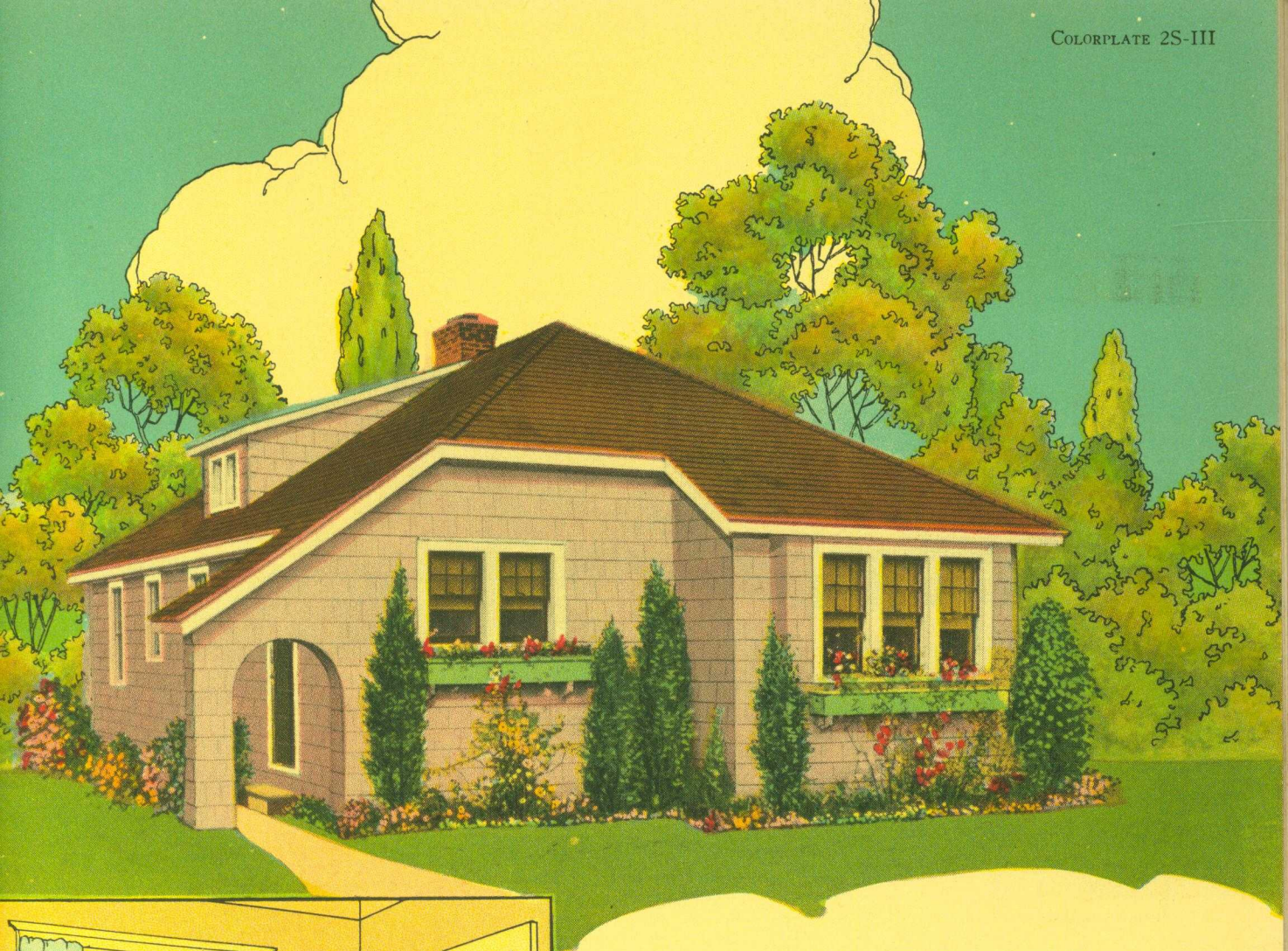
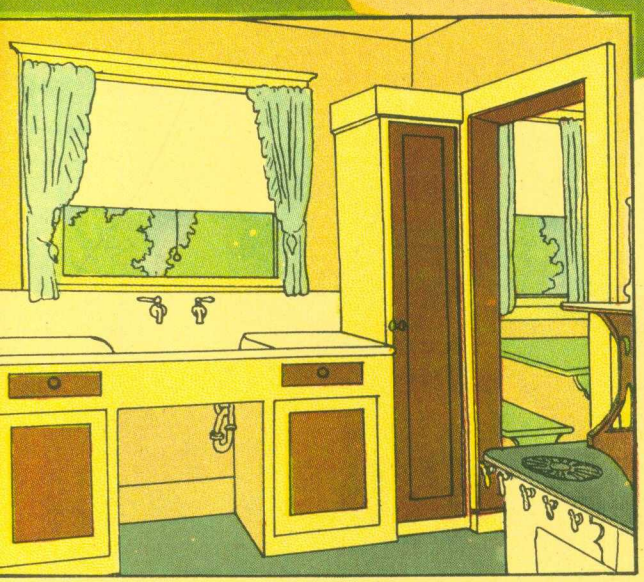






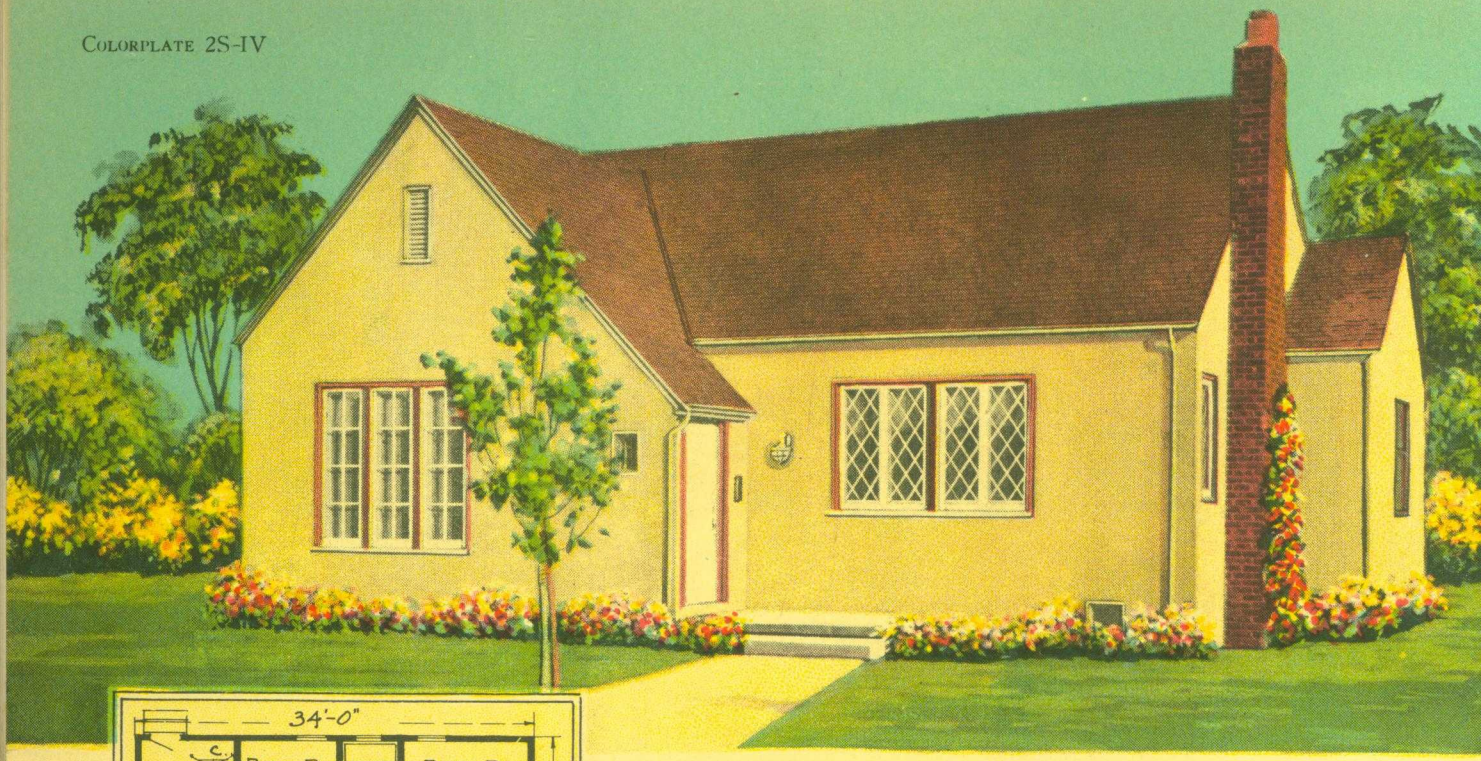
The SAN JOSE

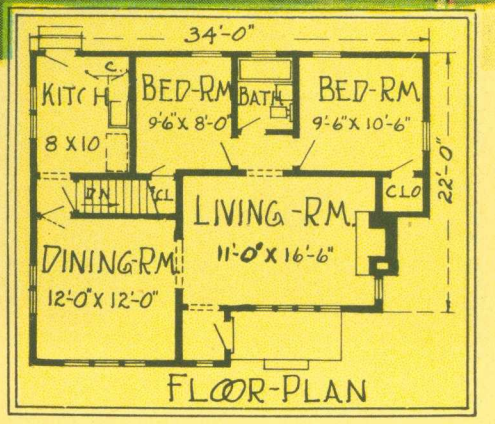
A CLEVER shingled cottage, *multum in parvo,* much in a little space, both of good looks and livable convenience. The disappearing bed in the living room with attached dressing closet provides an extra bedroom. Color sketch to left suggests the cheerful and convenient kitchen in this home.

Key to Equipment

① Ventilating Fan
② Kitchen Cabinets
③ Refrigerator
④ Gas or Electric Range
⑤ Built-in Incinerator
⑥ Cabinet Heater
⑦ Linen Closet
⑧ Medicine Case
⑨ Tub Shower
⑩ Concealed Bed
⑪ Built-in Mail Box
Weatherstrips
Storm Sash
Screens
Lighting Fixtures
Convenience Outlets
Electric Panel
Washing Machine
Ironing Machine
Clothes Dryer
Coal Chute
Heating Plant
Oil Burner
Water Supply System
Hot Water Supply
Water Softener
Radiant Gas Heaters
Electric Wall Type Heaters
Casement Windows
Dishwashing Sink
Automatic Cellar Drainer
Radiator Covers or Furniture

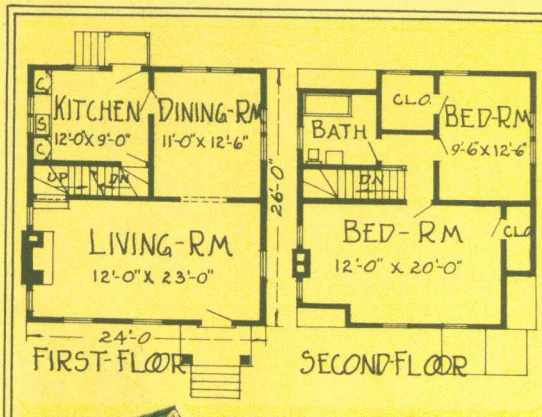
FLOOR PLAN





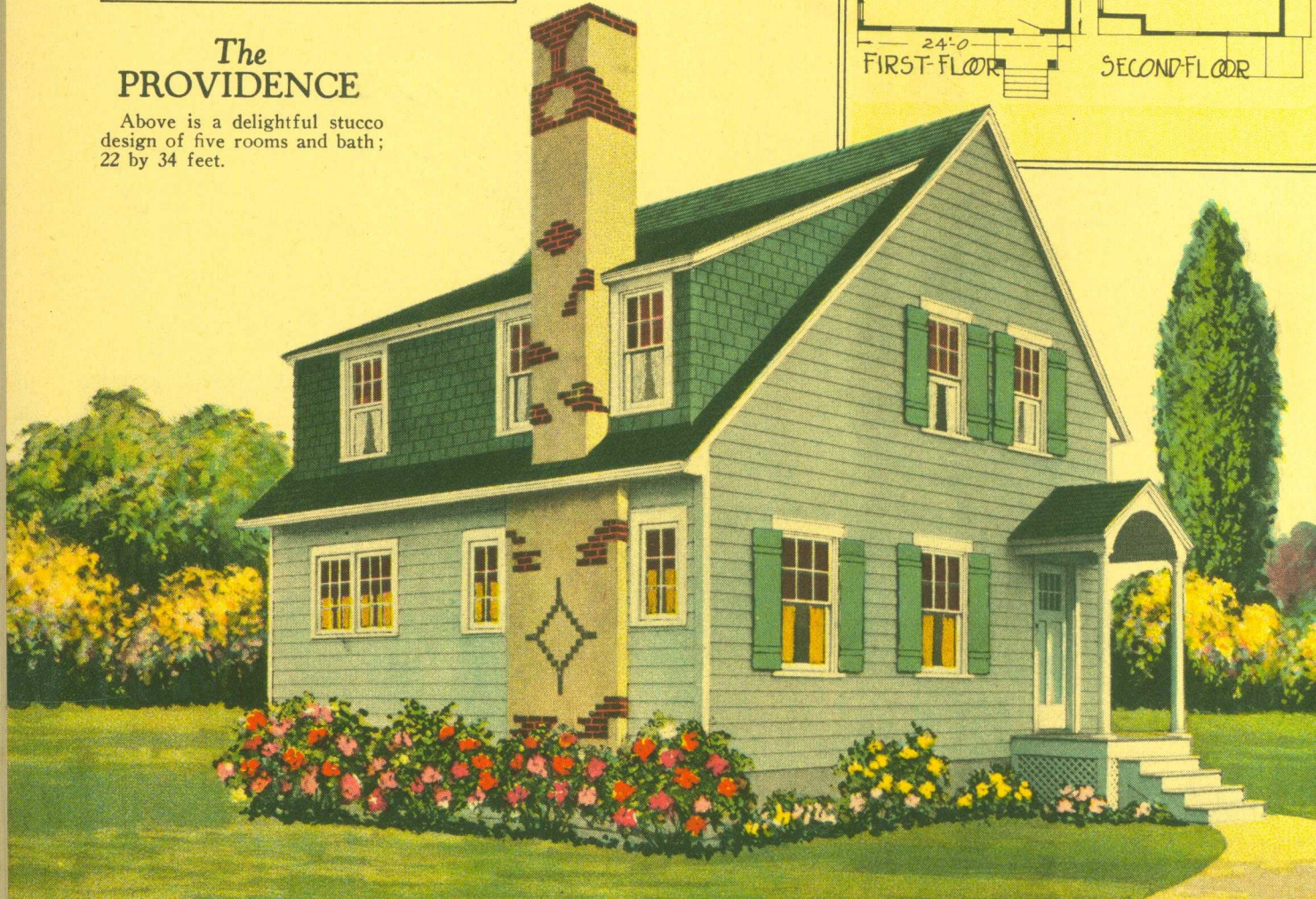
The PORTLAND

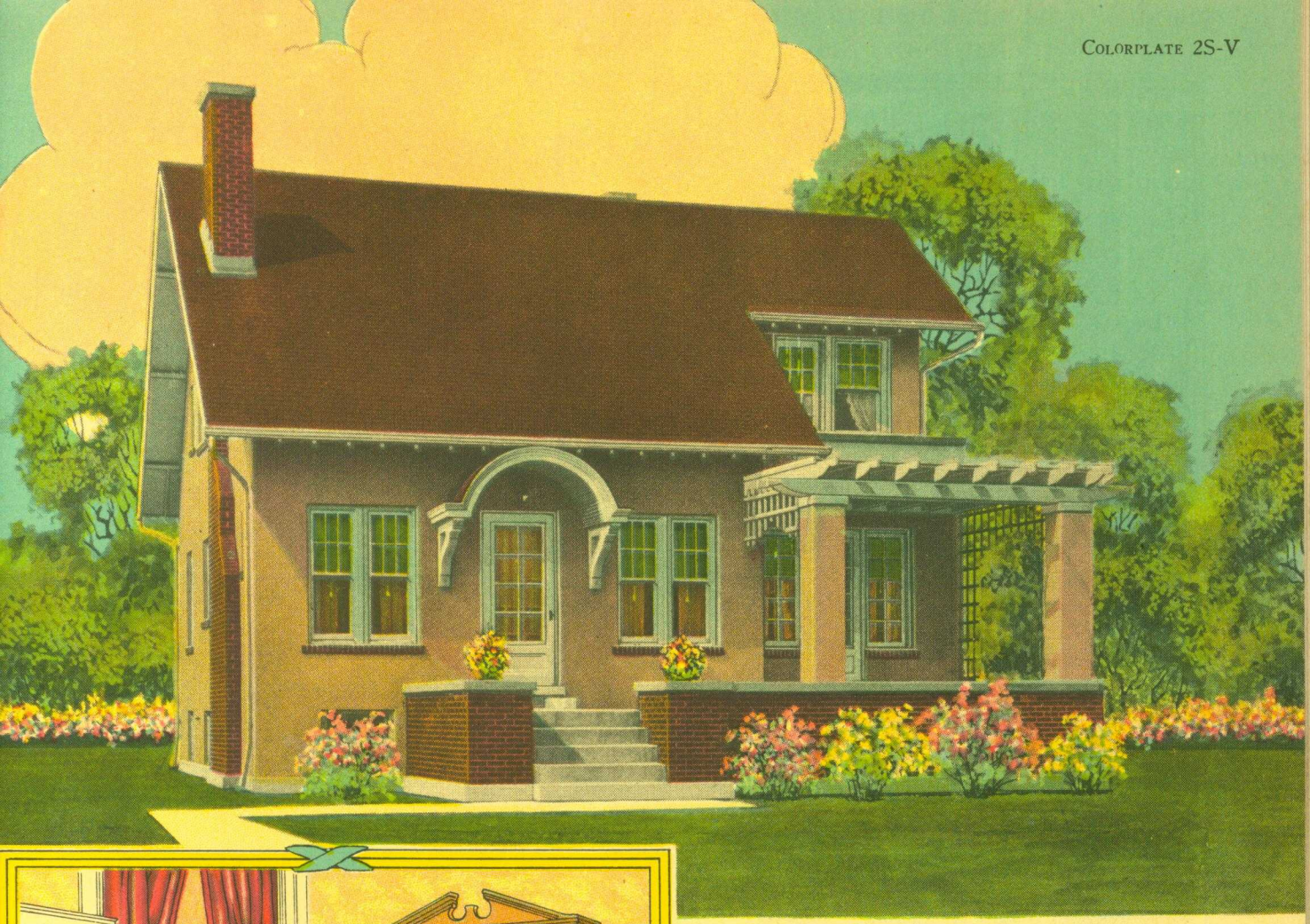
Below and to the right are perspective view and floor plans of a low cost Colonial home; 24 by 26 feet.

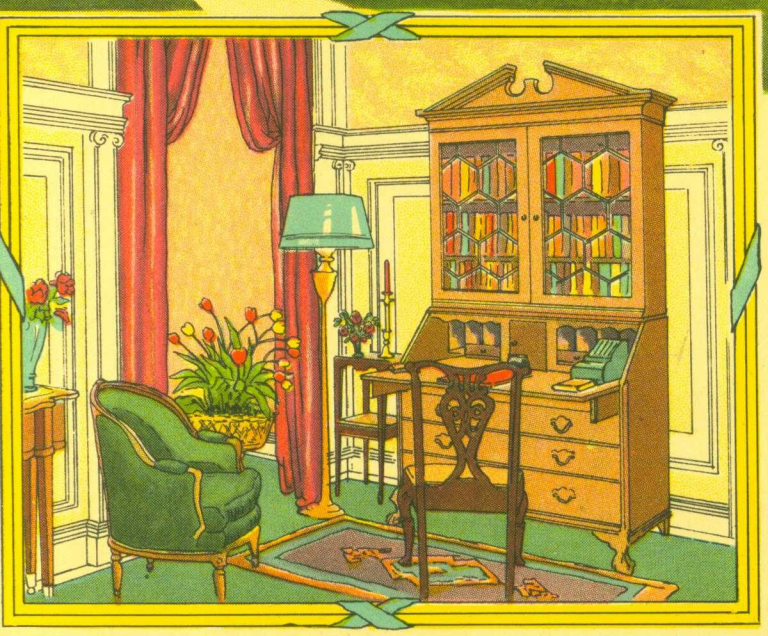


The PROVIDENCE

Above is a delightful stucco design of five rooms and bath; 22 by 34 feet.



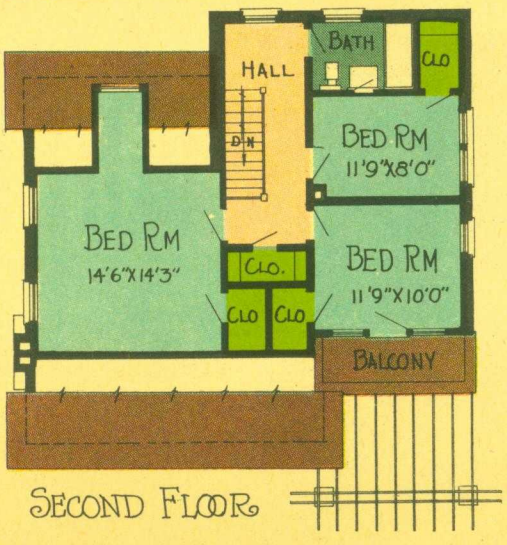


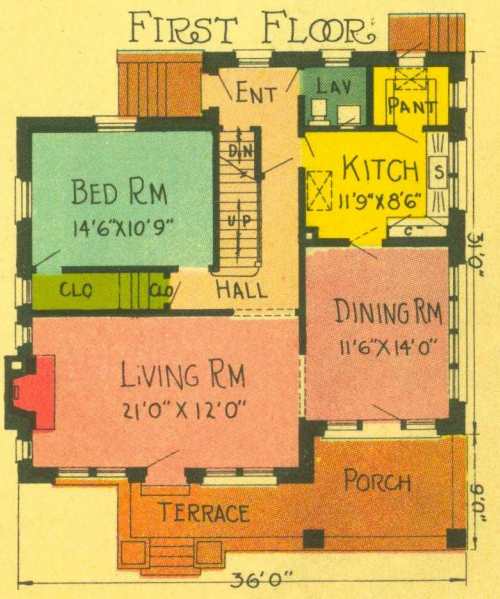


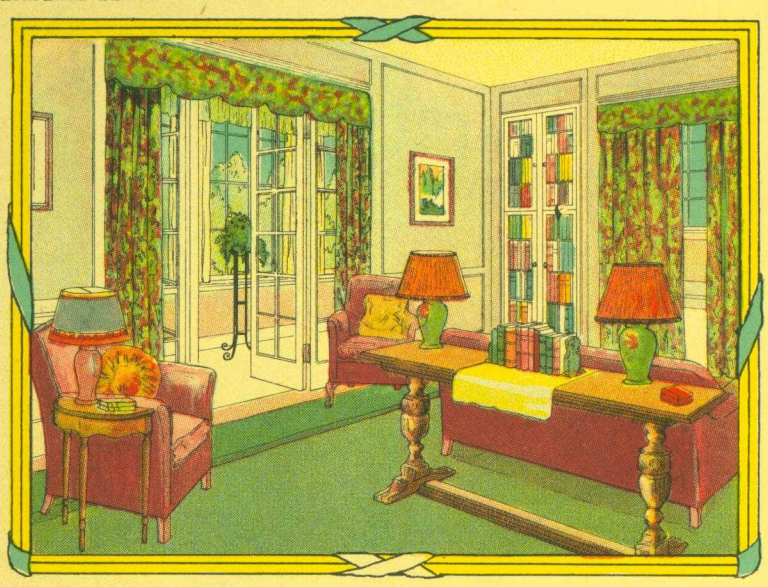
ABOVE is illustrated a furnishing and decorating suggestion appropriate to this home. The view is a glimpse of the living room showing a very interesting antique desk of Colonial style against a background of Colonial paneling.

The SAVONA

THIS popular stucco home of seven rooms has many good points. A graceful arched canopy over the front door and the pergola porch to the right make this home decidedly artistic and attractive. Seven rooms and bath are contained in the 31x36 feet which this house occupies. The downstairs bedroom is a well liked feature of this design.





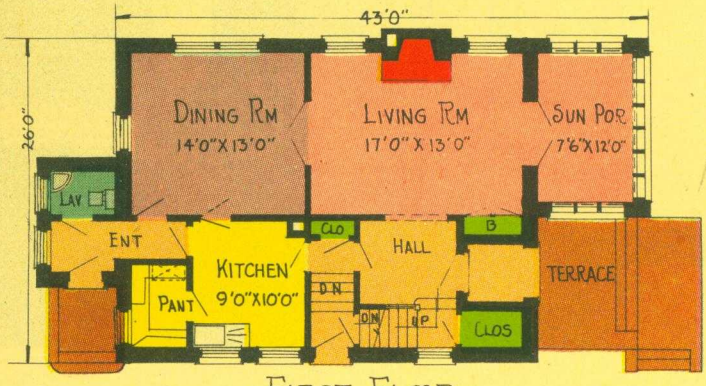


The SCARBORO

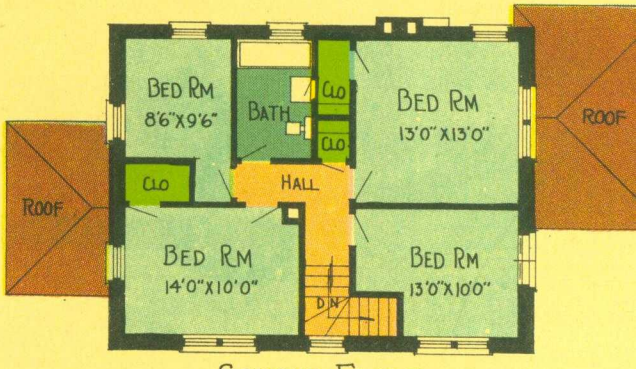
HERE is a substantial brick residence of th square hip-roof type, 26 feet wide x 34 fe deep. Within these main lines of the house are co tained the seven rooms illustrated in the ColorKe Plans below. Then in addition there are projectio front and rear on the first floor to accommodate th sun porch and the rear entrance.

Color sketch to left gives a glimpse of the livi room looking through toward the sun parlor whic is perhaps one of the most delightful features this house.

The construction is sturdy and substantial and th lines of this house are so compact that there is n wasted expense in construction.



FIRST FLOOR



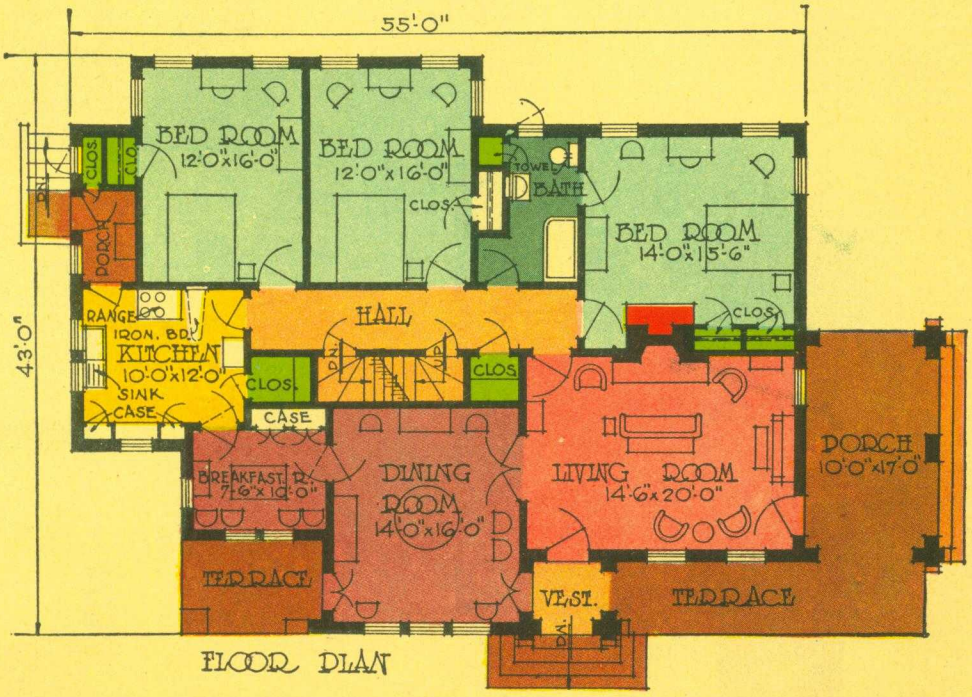
SECOND FLOOR

The SEDGWICK

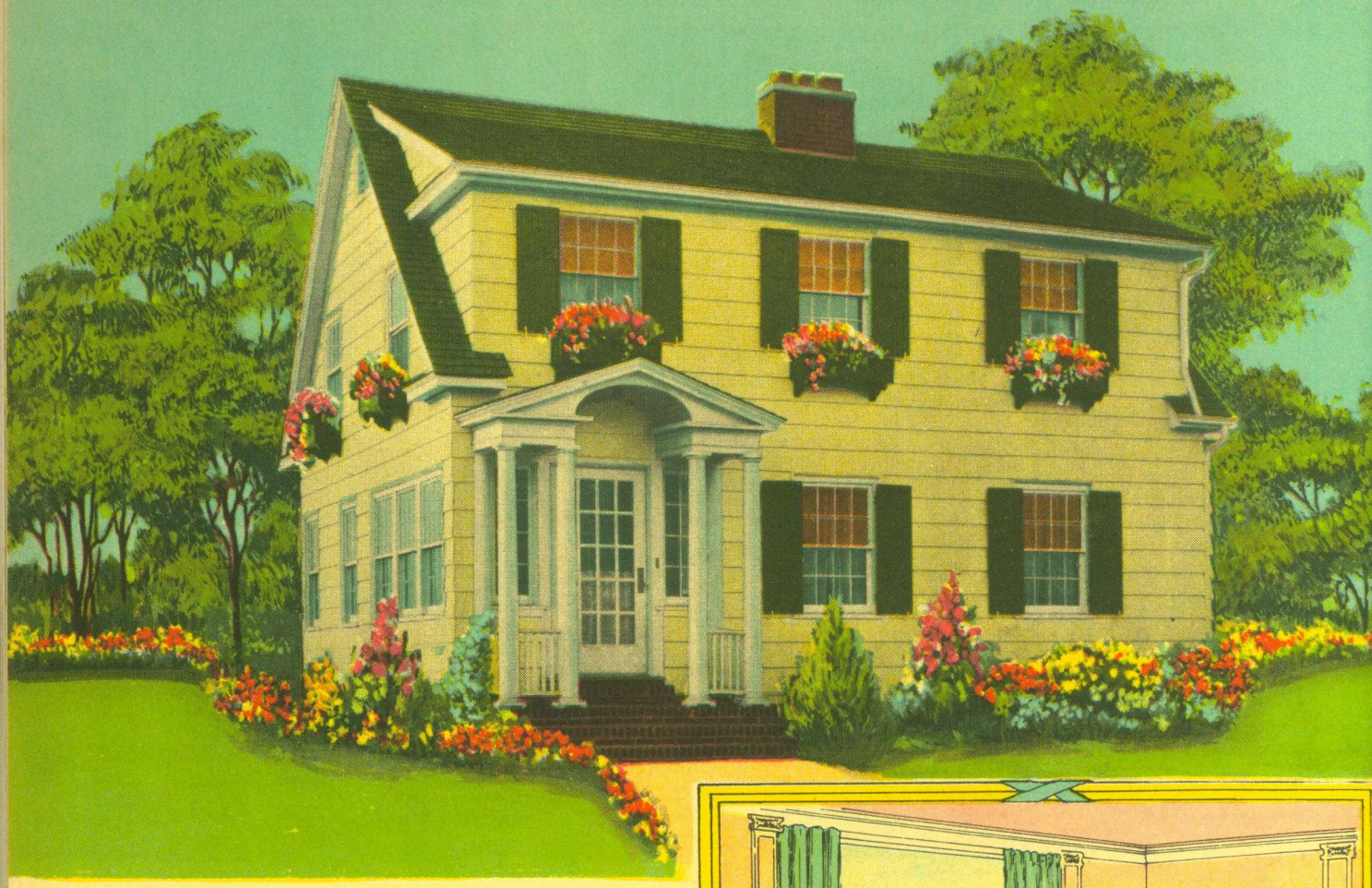
HERE is a beautiful example of the trend toward a richer and more substantial type of American home building. It is a residence of quarry-run Indiana limestone designed and built for Mr. Chas. A. Rushin, Macon, Ga. The stone is laid random ashlar and presents a variety of soft color tones ranging from buff to blue.

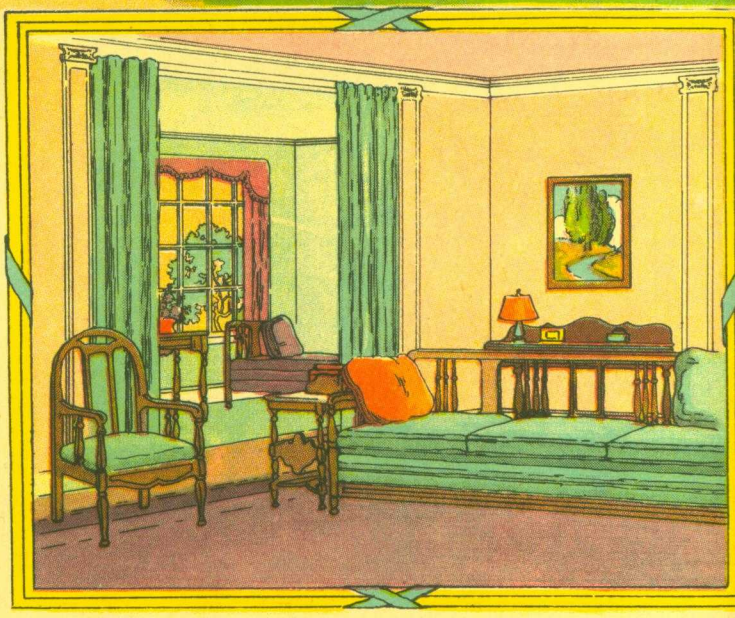
This house contains six rooms besides breakfast room, bath, hall and numerous closets on the main floor, with some usable space upstairs. The style is English Tudor. The construction uses a masonry wall of common brick or other inexpensive building units with a four-inch veneer of the limestone for the exterior. Contractors and builders are finding that this construction and material make a house costing only a little more.

SAWED finish Indiana limestone as used in this house is the cheapest finish and for this type of work is best. The rough sawed finish is the surface left just as it comes from the saws at the quarry. A surface of this character has considerable texture and is usually laid in random ashlar or coursed ashlar. It gives a surface of great character presenting an interesting play of light and shade.



FLOOR PLAN



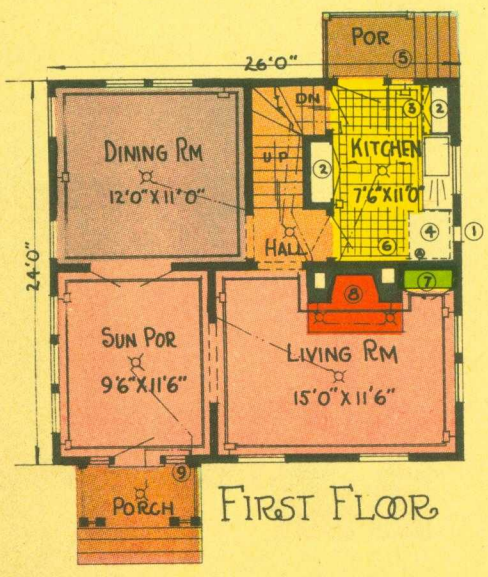


The SELWYN

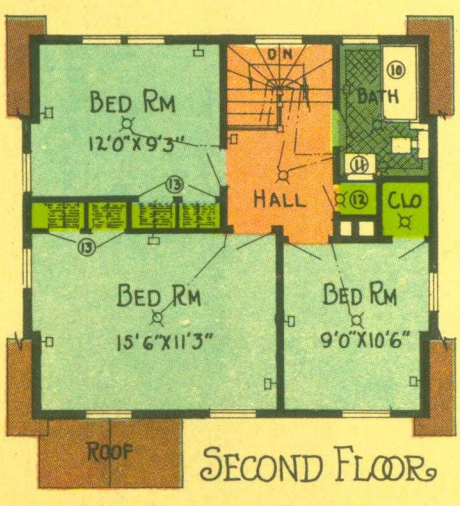
AN American Colonial type of seven rooms in 24x26 feet.

Key to Equipment

① Ventilating Fan
② Kitchen Cabinet
③ Refrigerator
④ Gas or Electric Range
⑤ Package Receiver
⑥ Incinerator
⑦ Bookcase
⑧ Fireplace Throat and Damper
⑨ Built-in Mail Box
⑩ Shower Bath
⑪ Medicine Case
⑫ Linen Closet
⑬ Space-Saving Wardrobes
Weatherstrips
Storm Sash
Screens
Lighting Fixtures
Convenience Outlets
Electric Panel
Washing Machine
Ironing Machine
Clothes Dryer
Coal Chute
Radiator Covers or Furniture
Heating Plant
Oil Burner
Water Supply System
Hot Water Supply
Water Softener
Radiant Gas Heaters
Electric Wall Type Heaters
Casement Windows
Dishwashing Sink
Automatic Cellar Drainer



FIRST FLOOR



SECOND FLOOR

OUR FRONT COVER HOME

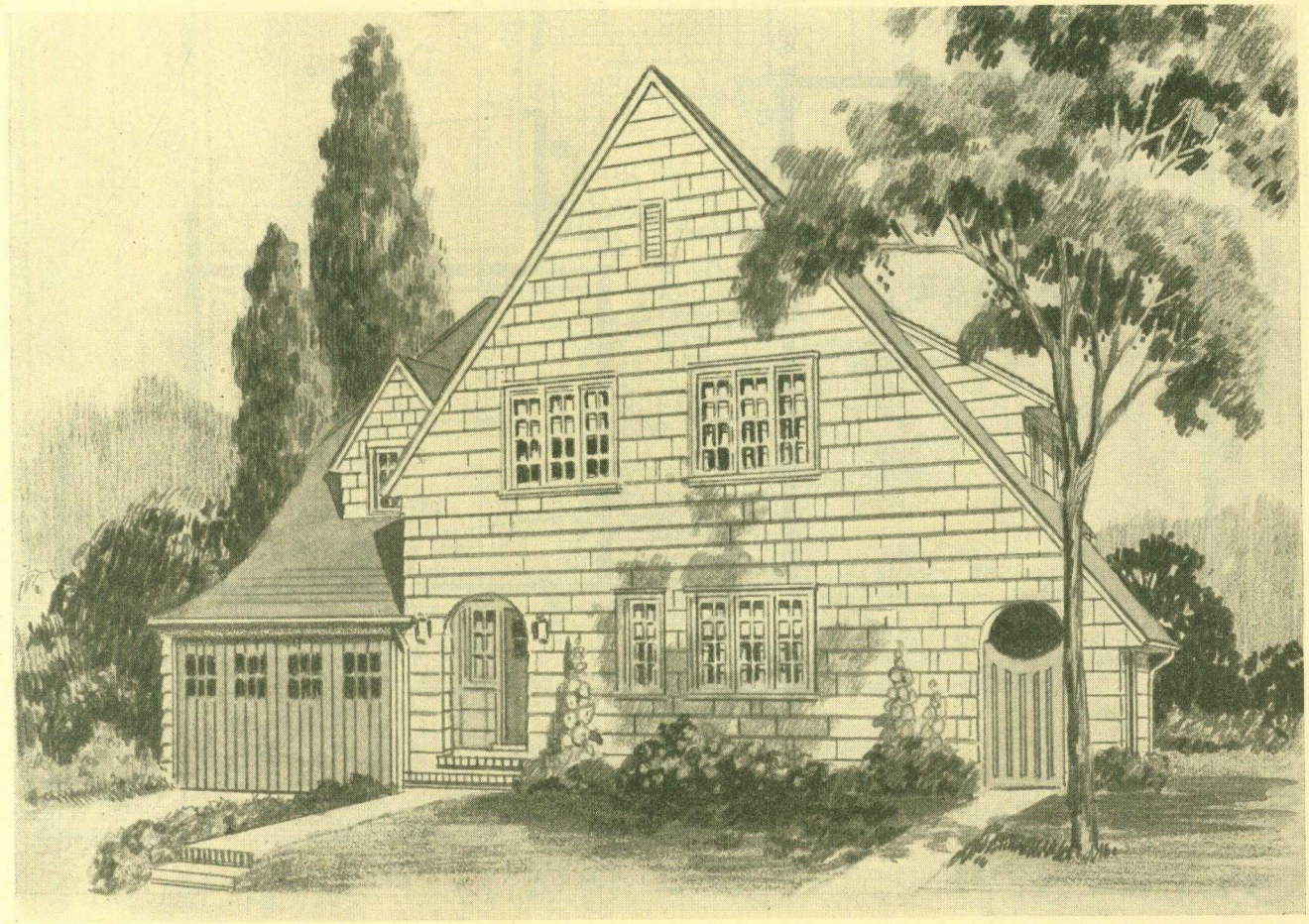
A Typical Modern House Design Providing Six Rooms and a Two Car Garage Built as an Integral Part of the House

A TYPICAL modern home,—that is a term which may quite properly be applied to the design which serves this month as Our Front Cover Home. There are several points about this design which are taken into consideration in applying this term. In the first place, the exterior is distinctively individual and architecturally correct and beautiful. The lines are well balanced, the various elements, windows, doors, wall finish and so on are harmonious. Also the house is suited to its location.

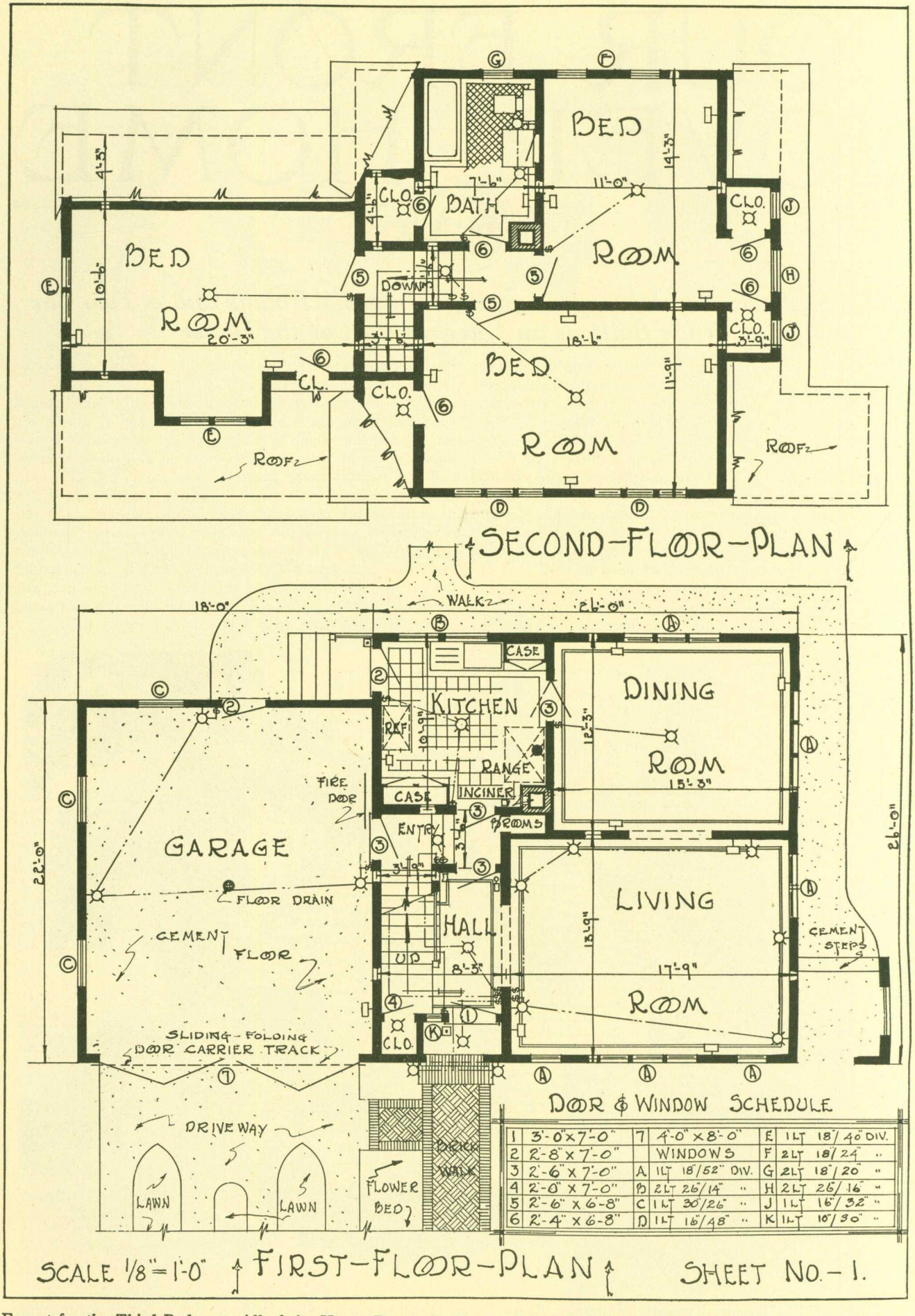
This is not a large house, merely of the average six-room size, but gives the impression of greater size than it actually has. This is because the garage has been made a part of the house in a skillful manner and the roof has been projected over the walk at the right. The house is designed to fit a wide but shallow lot. The useful floor space is large in proportion to the dimensions because of the efficiently compact arrangement.

Beyond this the house is fully equipped with every modern convenience so that even the small kitchen is ample for the purpose for which it is intended. This point of equipment is one of primary importance in the modern home and the various items noted on the plans will be found worthy of considerable study. These plans are reproduced to scale on the four pages that follow this and they tell the complete story of this typical home in a graphic manner.

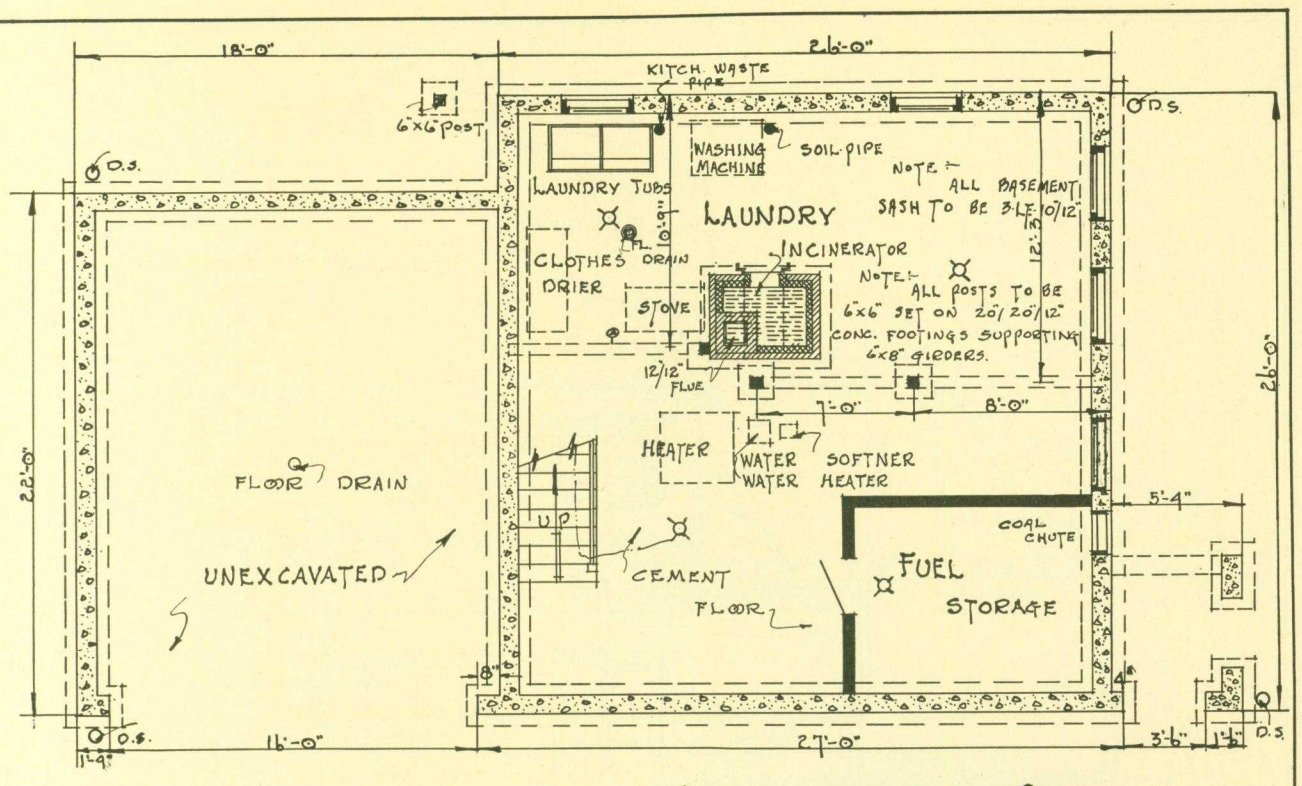
From these plans the experienced builder can reproduce this house with whatever modifications may be demanded by the prospective owner or he may build a home which will be readily salable because of its strong appeal to that large group of buyers who wish a new home already built.



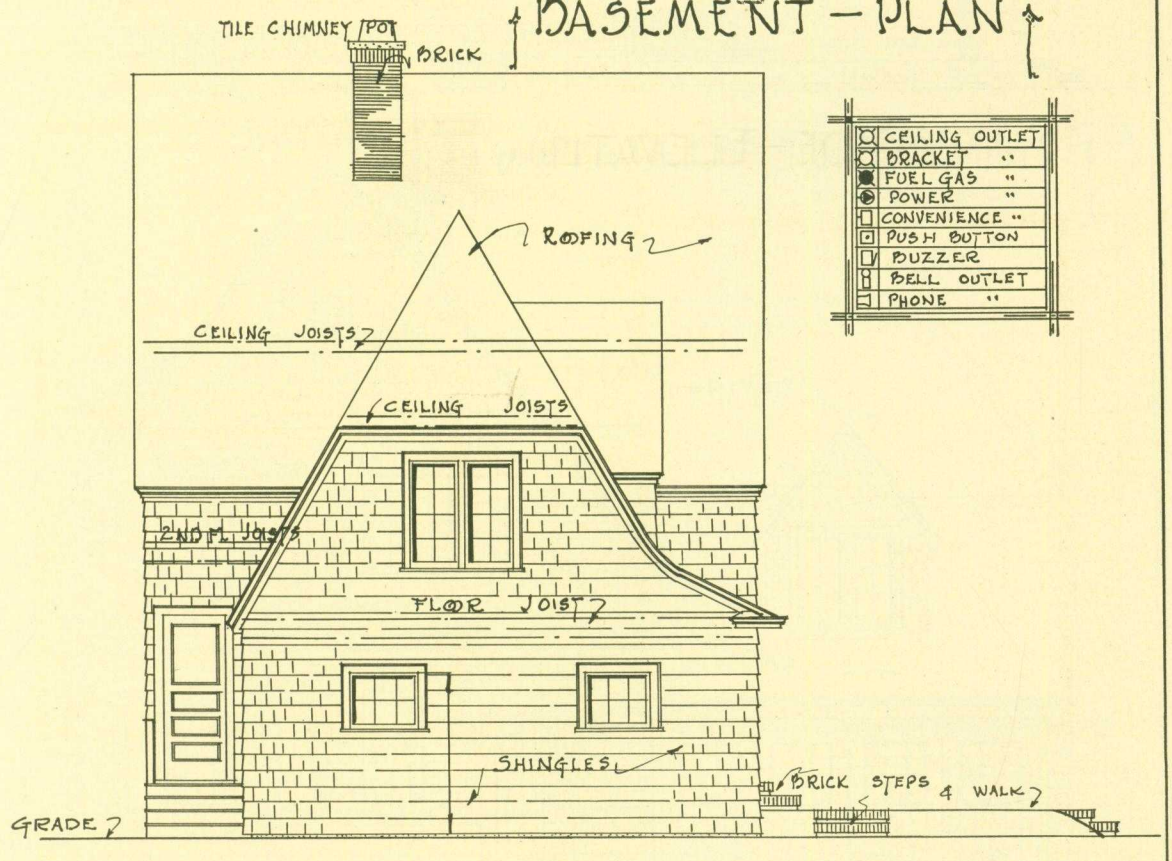
A Six-Room House Design, Typically Modern in Every Detail Down to the Smallest Items of Labor Saving Equipment, Is Presented Here and in the Plans To Be Found on the Pages Following This.



Except for the Third Bedroom, All of the House Proper Is Enclosed Within a Space 26 Feet Square and Yet, Because of the Compact Design, Our Front Cover Home Is Ample for Every Purpose.



BASEMENT - PLAN



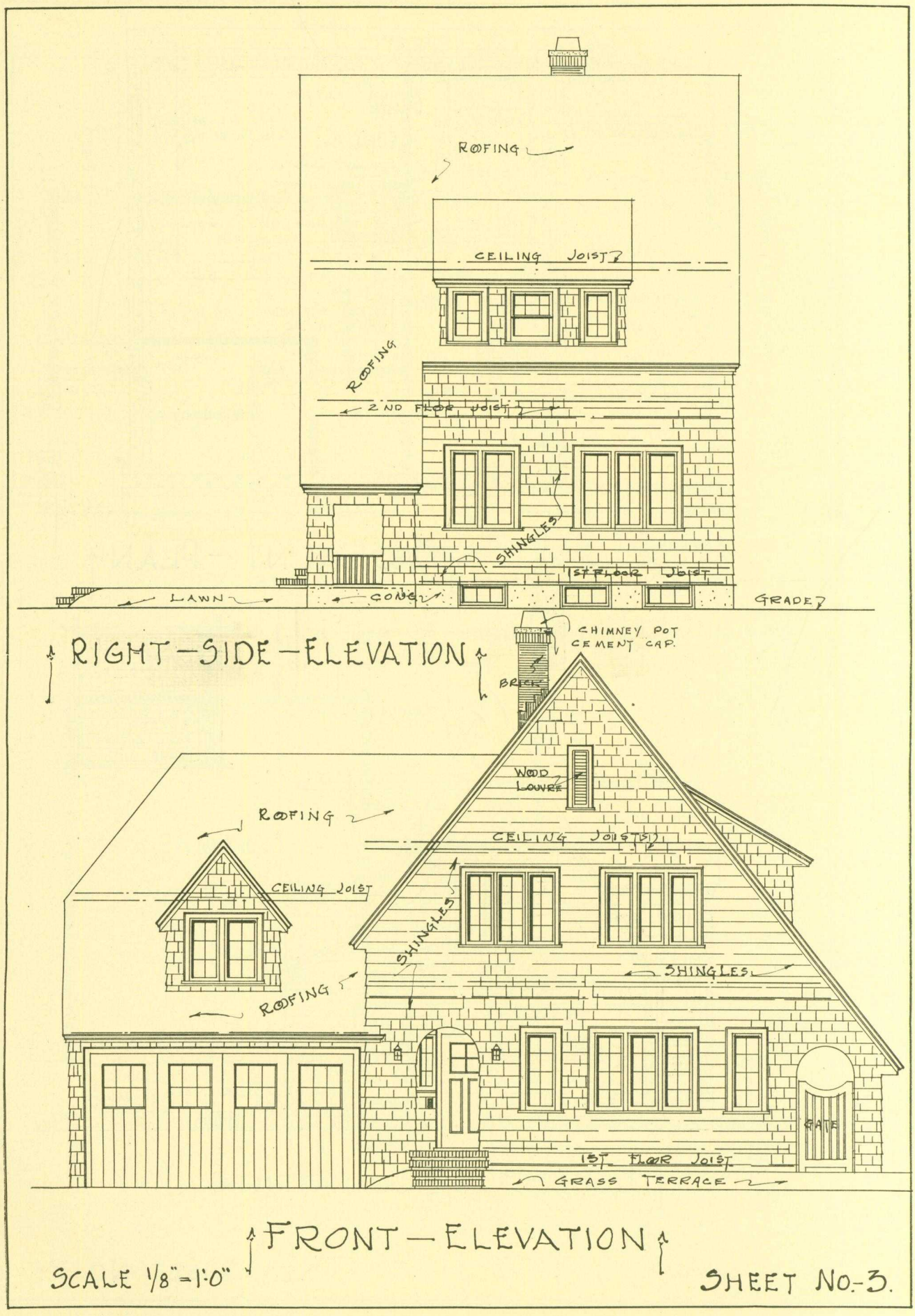
	CEILING OUTLET
	BRACKET "
	FUEL GAS "
	POWER "
	CONVENIENCE "
	PUSH BUTTON
	BUZZER
	BELL OUTLET
	PHONE "

LEFT - SIDE - ELEVATION

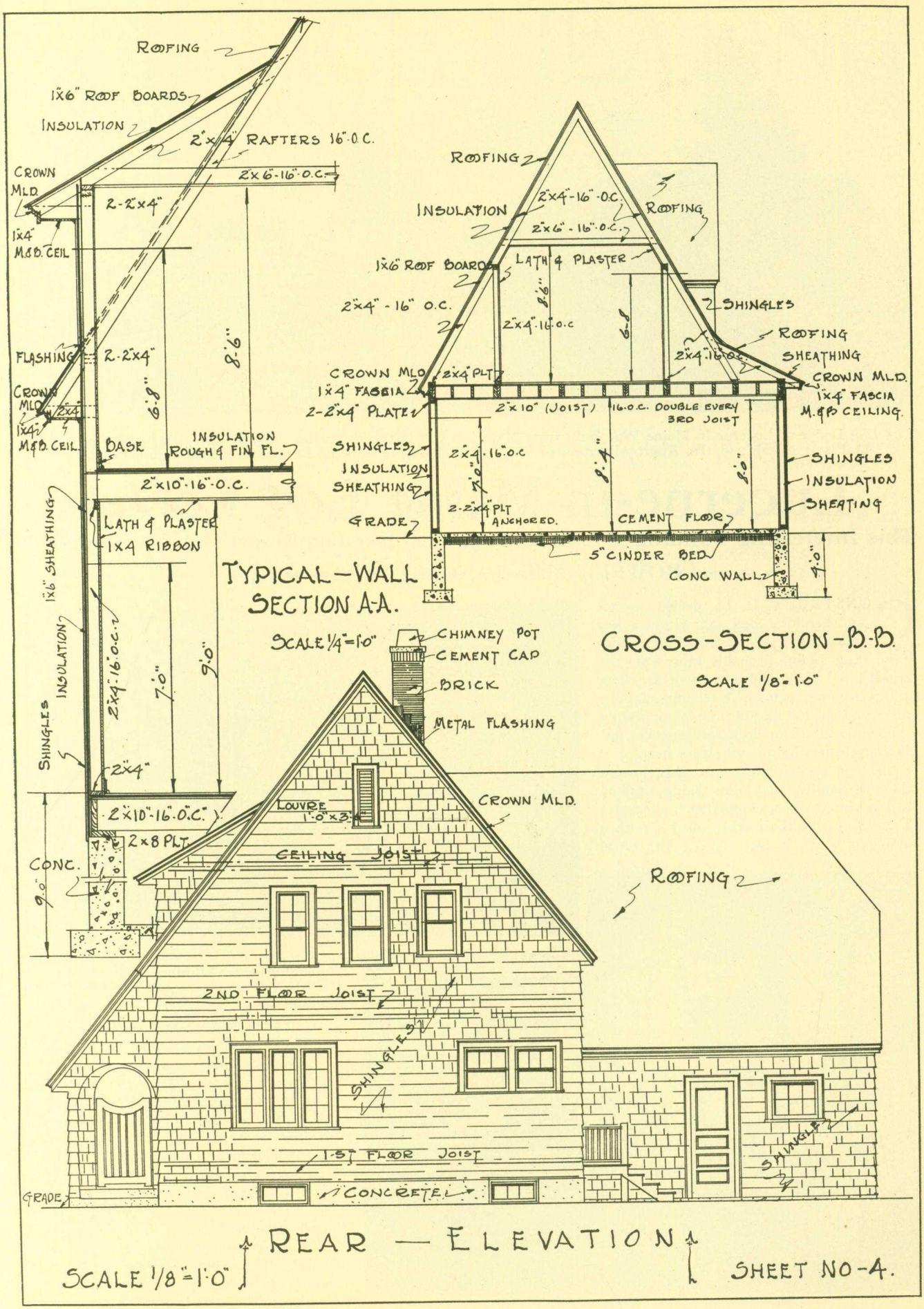
SCALE 1/8"=1'-0"

SHEET NO.-2.

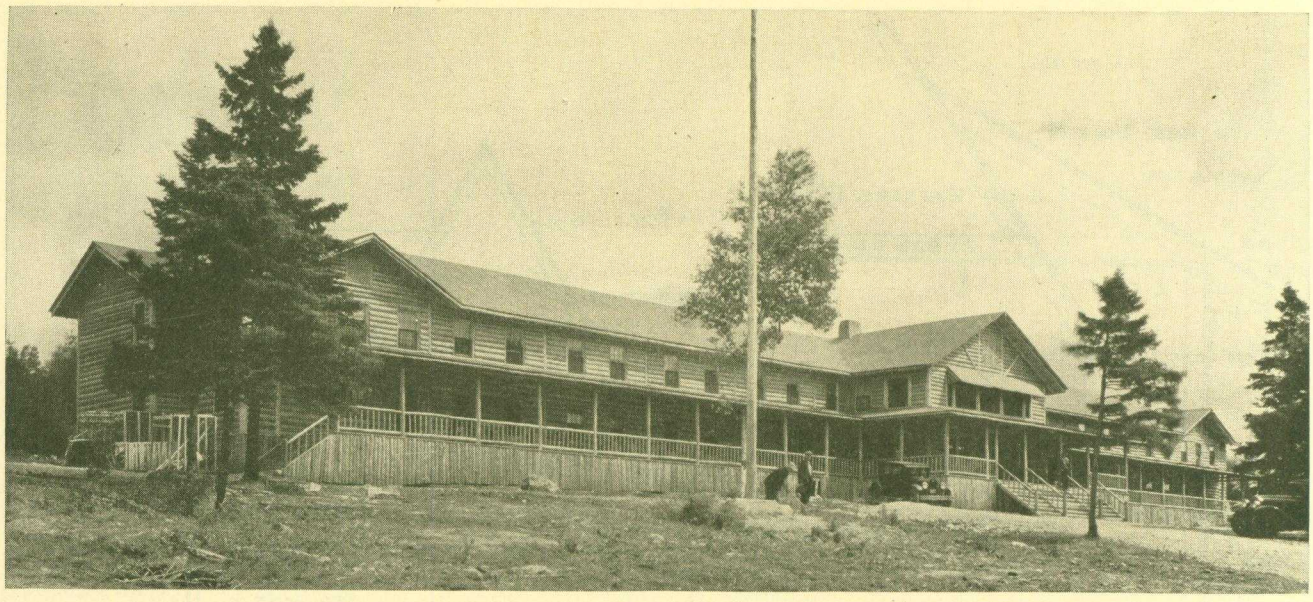
Here We See That Even the Basement Plan Is Carefully Thought Out and the Side Elevation, Together with Those on the Following Pages, Helps Us to Visualize the Finished House.



Here Are Two More Elevation Views of Our Front Cover Home Which Carry Out the Claim of Excellent Design.



A Cross Section and Typical Wall Section of Our Front Cover Home Point Out the Details of Construction Which Back Up the Excellence of Planning of This Typical Modern House.



The Log Lodge at Lucerne-in-Maine Was Built from Materials Cut in the Immediate Vicinity and Its Rustic Construction Makes It Notable for Its Appropriateness as Well as for Being One of the Largest Log Structures Ever Built.

Lucerne-in-Maine Log Lodge

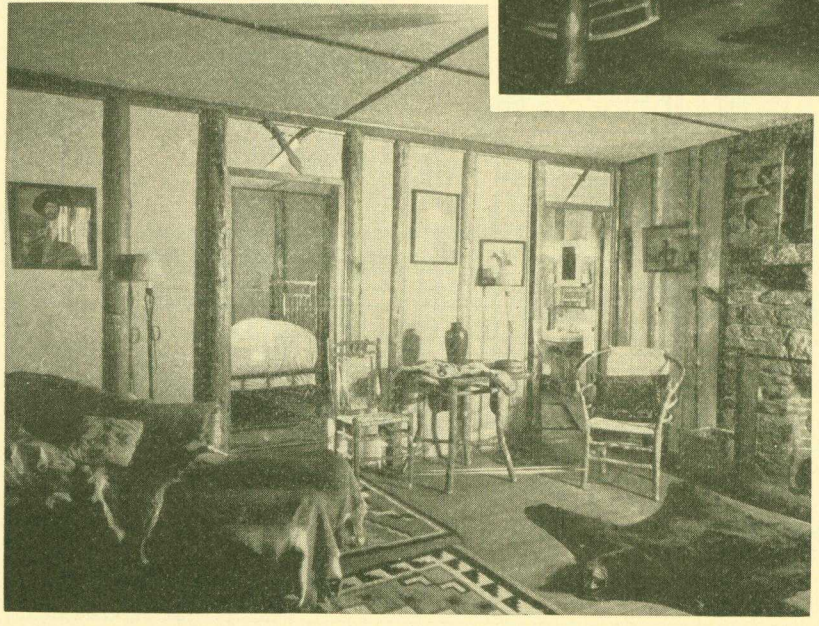
This Interesting Building Is Said to Be the Largest Log Resort Hotel in the World

CROWELL AND LANCASTER, Architects

CONSTRUCTED of peeled spruce and hemlock logs, cut within a few miles of its site, the Lucerne-in-Maine Log Lodge probably represents the largest hotel of its kind in the world. There are 85 sleeping rooms with accommodations for more than 100 guests. The lodge is fully equipped with all modern conveniences, including electric lights and steam heat.

The logs used in this construction were laid horizontally, the joints being caulked with oakum. When completed the exterior of the logs was thoroughly oiled. With a total length of 250 feet and a width of 34 feet, the building was designed so that additional wings may be added later to complete an enclosed courtyard. A covered porch extends along the entire front.

The Attractive Lounge of This Lodge, Though Electric Lighted and Steam Heated, Is Also Appropriately Rustic in Its Appointments.



A Living Room with an Adjoining Bedroom, Visible Through the Open Door, Shows the Comfortable Accommodations for Guests.

An outstanding feature of the construction, from an architectural standpoint, is the interior partitions. These are of logs sawed lengthwise and erected vertically. Half logs were used for studding, backed up with a half inch of insulating board. The other side was faced with 7/8-inch boards, with half-round logs forming panels.

The stairs consist of solid logs with just enough of the surface removed to make steps. The floors are of hemlock and spruce finished with hard pine and fir. The roof is covered with fire-resisting shingles.

FRANK GILLEN.

FURNACE HEATING

Heat, Humidity and Air Movement

Building Interiors to be Truly Comfortable in Winter Require the Addition of Moisture and Air Circulation as Well as Heat—How Warm-Air Furnaces Fulfill These Requirements

This Department by R. C. Nason, Heating Expert, appears every month in American Builder.

As knowledge of heating and its relation to human comfort are better understood one comes to the conclusion that merely to heat a building, without regard to other factors, is not enough. Interiors must be sufficiently warmed, surely, yet if the air one has to breathe is odorous or dusty a person cannot be said to be comfortable. Examination reveals, further, that even if room temperature is sufficiently high and the air free from dust and odors, when the air is too dry or too moist we experience irritation and discomfort. Movement of air is necessary to enable one to rid himself of bodily heat, moisture and natural poisons secreted through the breath and skin.

The air which surrounds the earth, briefly, is composed of four-fifths nitrogen and one-fifth oxygen, with about four parts of carbon dioxide in 10,000 of air, and considerable water vapor. When carbon dioxide exceeds 10 parts per 10,000 there comes over the average person a feeling of weariness and stuffiness. The limit should be placed at seven parts of carbon dioxide per 10,000 of air.

One of the principle causes of vitiation of interior air is respiration. Suppose, for instance, that air taken into the lungs contains four parts carbon dioxide per 10,000 of air, "fresh air," as we call it. When the same air is exhaled there are about 400 parts of carbon dioxide in 10,000 parts of air. Were a person shut up in a tightly closed room he would soon die from suffocation, as nearly everyone knows.

In addition to vitiation by the natural process of breathing and cooking, odors contribute their share in making inside air unfit for breathing. The human body may be likened to a moist rag being constantly wrung out. Even when a person sits still from 1½ to 2½ pounds of water are evaporated daily from the surface of the skin. If one moves about, as almost every one does, the amount is increased. Considerable moisture, too, is given off to the atmosphere by exhaled air, as human breath is almost completely saturated. It requires about 4½ cubic feet of air per minute for respiration, for the absorption of moisture and dilution of carbon dioxide gas from the skin.

It is for the foregoing reasons that interior air in winter must be comparatively pure if comfort and health are to be enjoyed. In table 1 is shown the number of cubic feet of pure air per hour and per minute with which the average person must be provided in order for it to be fit to breathe, so far as carbon dioxide is concerned. The quantity of air needed is shown in the figures at the top and the degree of vitiation below. From the data it is noted that about 50 cubic feet of air per minute must be provided per person if carbon dioxide content is kept at 6 parts per 10,000. In actual practice, however, 30 cubic feet per minute is considered sufficient. This yields air containing 7.33 parts carbon dioxide per 10,000.

Our bodies have been aptly likened to furnaces in which a food is burned producing a varying amount of heat which must be dissipated and the proper regulation of the loss of heat is probably the most important factor in producing bodily comfort. Air taken into the lungs comes in contact with the blood from the heart, is absorbed by the haemoglobin of the blood and is carried with it to all parts of the body. In the process combustion of organic tissues occurs and is accompanied by generation of heat and carbon dioxide. The carbon dioxide is then carried back to the lungs in the blood where it is exhaled by respiration.

Normal bodily temperature is 96.6 degrees Fahrenheit, and it is known that variation occurs in illness. Then we say one has a "fever." Without heat life is impossible, yet this heat cannot be supplied from without, the only function of external heating being reduction of the rapidity with which body heat is dissipated. When body heat is lost too rapidly one feels cold and when too slowly the reverse is the physical sensation. Prevention of too rapid loss of body heat is the ultimate aim of all heating systems.

Heat is lost from the body in four ways: by radiation, by contact with the air, by exhalation from the lungs and from the skin. Were one to enter a room having a temperature of 75 degrees, with walls only 50 degrees he would feel chilly simply because heat is rapidly radiated from the body through the air to the colder walls. In dry air, equality of body temperature is maintained by a steady but imperceptible evaporation from the skin. In moist air, on the other hand, the rate of evaporation is so lowered that bodily moisture is deposited on the skin as perspiration.

Cubic feet of air containing 4 parts of Carbon Dioxide in 10,000 supplied per person.	Per Hour	6,000	4,000	3,000	2,400	2,000	1,800	1,714	1,500	1,200	1,000	545	375	231
	Per Minute	100	66.6	50	40	33.3	30	28.6	25	20	16.6	9.1	6.2	3.8
Degree of Vitiation of the air of a room.	Parts of CO_2 in 10,000	5	5.5	6	6.5	7	7.33	7.5	8	9	10	15	20	30

Table 1—Quantities of Fresh Air Needed to Preserve Low Carbon Dioxide Content.

High humidity has the effect of modifying the temperature at which comfort can be secured. Reversely, when the air is too dry room temperature must be higher if a person is to experience the same feeling of comfort. This has to do directly with the loss of heat from the body, as previously explained.

An ordinary thermometer, thus it seems, is only of relative value for indicating a person's feeling of comfort. It does not register the humidity, but serves merely to indicate the temperature. For the reasons already given some installers refer to correct proportions of heat and humidity as "effective temperature," which varies somewhat from that registered on the average thermometer and falls within what has been aptly called the "comfort zone." This means, essentially, that heating engineers have found that there are certain temperatures and accompanying humidities at which normal persons will feel comfortable. It is believed that 50 per cent of all persons will feel comfortable with 62 to 69 degrees effective temperature and about 97 per cent of all persons are comfortable at 64 degrees effective temperature, or when the air is about 68 degrees Fahrenheit and the accompanying relative humidity is from 45 to 55 per cent.

Outdoor Temperature Deg.	Per Cent Humidity in Outdoor Air (assumed)	Per Cent Humidity of same air when heated to 70°
0	50	3
	80	5
15	50	6¼
	80	10
30	50	12½
	80	19½
45	50	21¼
	80	34

Table 2—Dryness of Interior Air in Winter When No Artificial Moisture Is Added.

Heating installers would like to duplicate outdoor air conditions as closely as possible in the belief that nature is the best doctor. June weather is often used as a guide to optimum atmosphere, from the comfort standpoint. This might be qualified somewhat when applied to latitudes other than the central portion of the United States. Some poet, it will be recalled, wrote: "What is so rare as a day in June?"

If June days are taken as being especially comfortable it must be considered that nearness to bodies of water results in more humid air than sections near arid regions. Low interior temperatures, say 65 degrees, thus may feel warm in localities where outside air humidity is relatively high. Rarely are outdoor humidities lower than 50 per cent nor above 80 per cent unless rain or snow are "in the air."

Take average outdoor winter temperature at 30 degrees and humidity at 50 per cent. What happens when this air is raised to 70 degrees, as is the case in winter heating? This is shown in Table 2. The column at the left lists certain outdoor temperatures with zero as the lowest. The middle column has assumed certain relative humidities, with 50 as the lowest and 80 per cent as the highest. The final column demonstrates the resulting humidity when the same air is warmed from the outdoor temperature at the left to 70 degrees Fahrenheit.

Thirty degrees outdoor air, then, having 50 per cent relative humidity, that is, with one-half of all the moisture it can hold, if raised to 70 degrees, as in heating, will then have only 12½ per cent humidity. Opinion may differ somewhat as to the ideal relative humidity for personal comfort, yet few will deny but that 12½ per cent is far too low for either comfort or health. One's comfort is easily told by the feeling, not always is effect on health so easily determined.

From the health viewpoint it is known scientifically that when air breathed has too low moisture content, the nasal passages are overtaxed to secrete sufficient mucous to keep the membrane covered. Susceptibility to colds, nervousness and irritability result.

In heating buildings other than manufacturing establishments excessive humidity is rare, but not unknown. When it exists the condition is apparent via the window panes which are likely to sweat when the moisture content inside exceeds 45 per cent relative. It is important to bear in mind about the humidity question that a cubic foot of air at 70 degrees Fahrenheit holds about 8 grains of moisture when saturated. At 30 degrees the same quantity of air can contain only about 2 grains. If 30 degree outside air is heated to 70 degrees, as is the case under actual winter heating, it still holds the 2 grains of moisture and no more unless some has been added artificially.

Furnace men have made heroic attempts to add moisture by means of water pans, automatically or hand refilled, suspended within the casings of heaters. Yet, the passages within which they must go will not take large pans without blocking space needed for circulation of air. Other heating systems have no means of adding moisture at the heaters, but get moisture into room air with open receptacles. Hence, the likelihood of excessive humidity in building heating with present designs of plant is remote.

Granted, that the real object sought in heating is personal comfort and health, rather than merely heating alone, one is forced to believe that warm-air furnaces represent an excellent attempt to incorporate heat, humidity and air motion. Practically all standard designs of heating plant will heat nowadays, so far as thermometer readings is concerned. If this is deemed sufficient then choice of heating medium is of little significance. If one holds the idea, however, that moisture and air circulation are equally important then attention must center on warm-air furnaces, which offer air circulation as well as the other factors.

Ventilation by the open window is not of the best because it cannot be secured without drafts and loss of expensively generated heat. Considerable fresh air leaks in through cracks about windows, particularly on the windward sides of buildings, but circulation cannot be depended on to the same extent as the constant current coming up through warm air registers at from 100 to 400 linear feet per minute.

Experiments demonstrate that one may live during the coldest weather with comfort in a room of 65 degrees Fahrenheit, where the relative humidity is maintained at about 60 per cent. Lack of first-hand knowledge as to comfort, temperature, humidity and air motion are widespread, as was recently demonstrated by an experiment whereby persons were placed in a room equipped with a moistening apparatus and the temperature kept at 65 to 68 degrees, with relative humidity of about 60 per cent. An adjoining room, without a moistening device and heated by an ordinary steam radiator had an average temperature of 72 to 74 degrees and relative humidity of 30 per cent. In every instance without knowing what the temperature of the different rooms was the opinion was expressed that the room with the higher humidity was warmer than the other room.

It appears to be progress in the right direction to have the agencies for accomplishing the three chief factors necessary to comfort at the heater itself rather than separated and the furnace is the plant which has taken this into consideration. *Heating* is the first requisite. That sufficient warmth can be generated by all styles of heater few will deny. *Humidity* can be had in some systems by means of water pans in the rooms, but only in the furnace are these located within the plant itself. *Air movement* is assured in the steady, warm current coming from furnace registers. Dependence on cracks about windows or open windows are uncertain and expensive methods of procedure.

CHIPS & QUIPS

Convincing eh?

If you find yourself at a loss for proper descriptive matter for your newspaper advertising, here are a few suggested lines taken from one day's issue of a large newspaper:

"Greatest Sale in the History of the City."

"A Stupendous Mercantile Event."

"Such Bargains Will Never be Offered Again."

"Only Our Unsurpassed Buying Power Makes Possible Such an Offer."

"Sensational—Stupendous."

"Costs Forgotten—Profits Ignored."

"Our Thousand Years in Business Gives Us the Jump."

"Once in a Lifetime."

"Phenomenal—Staggering—Stupefying Sale."

"Prices Slashed—Yes, Slaughtered."

✣

That's Different

Professor—See here, my man, who in the devil told you to plant all that new shrubbery in my front yard?"

Gardener—Why, your wife, of course.

Professor—Mighty pretty, isn't it?—*Wabash Caveman.*

✣

The New Competition

A man mortgaged his home to buy an automobile. Then he went around and tried to mortgage the car to get money to build a garage.

"How are you going to buy gas?" curiously inquired the man of whom the loan was asked.

"Well," replied the other slowly, "if I own a house, a car and a garage, I should think any dealer would be willing to trust me for gas."

✣

Speaking Lightly

Statistics show an increasingly large gain in privately owned electric plants. Is this the own-your-own-ohm movement asks the Arkansas Gazette?

✣

He Must Be a Pessimist

"Is the world round?" a school ma'am asked the little boy.

"No'm."

"It isn't, eh? Is it flat then?"

"No'm."

"Are you crazy, child? If the world isn't round and it isn't flat, what is it?"

"Pop says it's crooked."

Modern

Steno—"I'm going to be married Sunday, and—"

Boss—"—and so you're going to leave me."

Steno—"Oh no! I'm just going to tell you that I'll be needing more money."

✣

Pay Dirt

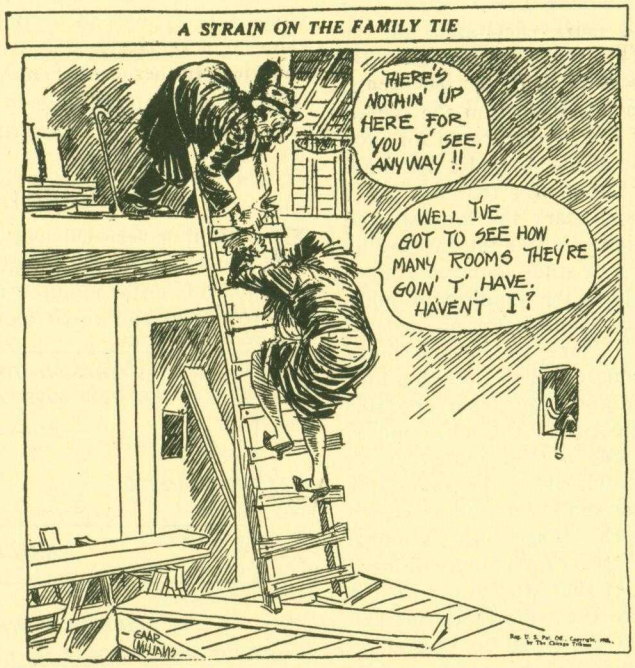
Inquisitive: "And what are you digging for, my good man?"

Digger: "Money."

Inquisitive: "You don't say so. And when do you expect to find it?"

Digger: "Saturday night."

✣



[Reprinted by permission of the Chicago Tribune.]

Lost, Strayed or Stolen?

"Whatever became of that portable garage of yours?"

"Oh, I tied the bull-dog to it the other night and a cat ran by him."

✣

Not His Line

He: "I come to bring warmth and light into the bleakness of your home."

Romantic Spinster: "Oh, you dear——"

He: "Nix on the love stuff, lady. I'm the installation man for the gas company."

✣

Why?

Efficiency Expert (to clerk): "I fear, Mr. Jones, that you are ignoring our efficiency system."

Mr. Jones: "Maybe so, but somebody has got to get the work done."

✣

Sounds Like Favoritism

"What was the reason for your being discharged from your last place?" asked the employer of an applicant for a job.

"Good behavior, sir," replied the applicant.

"Nonsense! You would never be discharged for good behavior."

"Yes, sir; they took two months off my sentence."

✣

The Consumer Pays

Abie—Vot is de idea of raising de price of gasoline all de time?

Garage Man—What do you care? You haven't got a car.

Abie—No, but I got a cigar lighter.

HOW DAN DOES IT

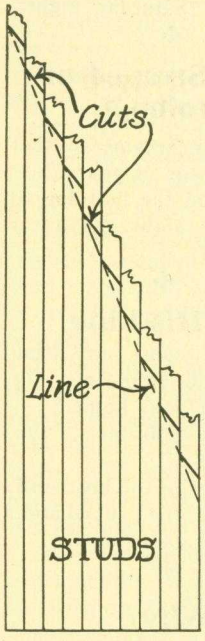
A Department for Passing "Life Savers" along to other Builders

$2 for an Idea

Dan is an ingenious cuss. Nothing ever stumps him. He always knows the way out when he runs into a tough problem out on the job or in the office. Dan is editor of this Department and will pay $2.00 each for every good idea he can use here to show and tell other builders "how to do it." Send him a rough sketch and a short description of what the tough job was and how you handled it.

Address Dan-Do-It, care of American Builder, 1827 Prairie Avenue, Chicago, Ill.

To Mark Gable Studs Quickly



The Studs for Gable Ends May Be Marked Quickly and Accurately in This Manner.

I NOTICE a great many carpenters, when studding under rafters, set plumb and mark each stud for the length. This is a slow process. By laying the plate off from the center, or an equal distance from the center, the lay-off can be duplicated for each side of the gable and also for both gables, or all gables that are alike.

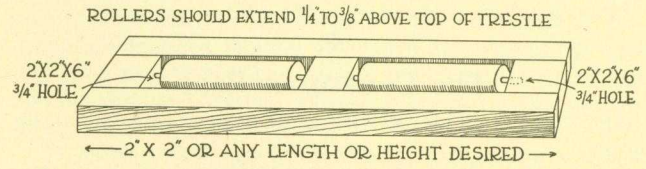
Plumb and mark the longest stud and the shortest stud of the group. Lay these two studs down and place between them the number of additional pieces required for one side of the gable. Place the bottom ends perfectly square and then draw a line, with a straight edge, from one side of the angle cut on the long stud to the same side of the angle cut on the short stud, using the same side of both long and short stud as shown in the sketch. The point at which the line intersects each stud will mark the length of that stud and with the bevel square the cut can be marked on each. One must be careful to keep the studs tightly together while marking. If this is done the marking will give perfect satisfaction.

C. W. Elliott, 4131 Broadway, Gary, Ind.

✣

For Handling Heavy Timbers

MANY times I have been working with large timbers or heavy planks, on trestles, and have had difficulty in moving them into the position where wanted. I would lift one end of a timber and try to pull or push it a foot or two and instead of moving the timber would tip the trestle over. I have overcome this difficulty, however, by the use of the device shown in the sketch, which also saves a lot of hard labor in handling such material. This device simply consists of rollers set into the trestles and extending from ¼ to ⅜ inch above the top of the trestle. The sketch shows quite clearly how these are made. With them the heaviest timber can be moved quite easily with no danger of tipping the trestle over.



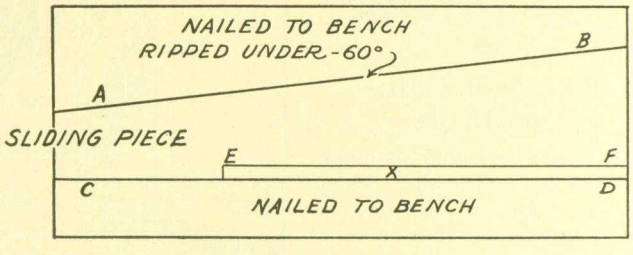
Rollers Set Into the Trestle Greatly Facilitate the Handling of Heavy Timbers and Planks.

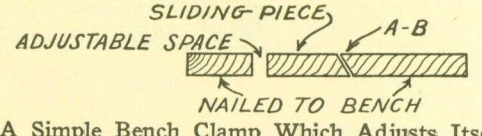
Austin Griffin, Box 37, Chapin, Ill.

✣

An Efficient Bench Clamp

HERE is a very efficient and inexpensive "vise" to hold lumber while finishing, which can be cut from a 1x8-inch board in a few minutes' time. Take a piece of 1x8 about two feet long and rip it along the lines AB, CD and EF





A Simple Bench Clamp Which Adjusts Itself to Varying Sizes of Material and Holds It Firmly While Being Worked.

as shown in the sketch. As can be seen, the line AB is ripped along a long slant and also on a bevel, as shown in the sectional view.

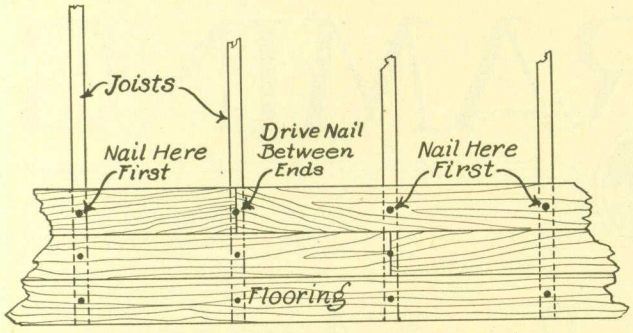
The piece ripped out at "X" is not used, the space being left to receive the piece of material to be worked. Nail the two outside pieces to the bench in the position shown, leaving the middle piece free to slide. The space at "X" can be widened by sliding the middle piece back. The material to be worked is placed in this space against the shoulder of the middle piece, and the two are slid forward.

This gets a square pressure on the material and prevents it tipping as it will do when two strips are merely nailed down in the form of a "V." Being adjustable it secures material of different thicknesses with equal security. A sharp jerk backward or a tap with a hammer will loosen.

Aubrey P. Bennett, Box 40-A, Route 1, Ferndale, Wash.

Prevents Cracked Flooring

WHILE nailing fir flooring directly on the joists I noticed that, unless the piece of flooring happened to be extra soft, I could not nail the ends of the pieces without splitting them. To avoid this I first nailed the flooring at the other



When Nailed in This Manner the Ends of Fir Flooring Will Not Crack, Yet Are Held Well in Place.

joists and then drove nails into the joint between the ends. as shown in the sketch, the head of the nails holding the ends of both pieces of flooring. The other nails are driven first. This will not leave a crack.

W. A. ROARK, Battle Ground, Wash.

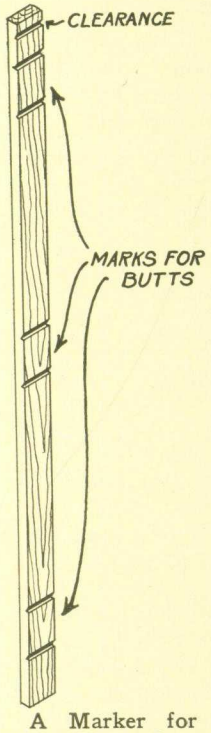
✣

Marker for Hinge Butts

WHEN hanging doors, when there are enough of them on a job to justify it, I take a piece of door stop or other light material and cut it to a length a trifle shorter than the height of the jamb. I then lay off the butts on this strip with a knife and mark the stick at the top so there will be no danger of getting it turned end for end. I take this stick and, keeping it against the head of the jamb, I mark all the jambs for the butts.

When the jambs are all marked I either cut the desired clearance for the door off the stick or mark it with a knife. I use this stick for marking the doors for butts and I get the same clearance on all doors and do not have to wedge the door in place to mark the butts. The sketch shows the marking for three butts.

TED GREVILLE,
5128 34th St., San Diego, Cal.



A Marker for Hinge Butts Is a Time Saver Where There Is a Big Enough Job.

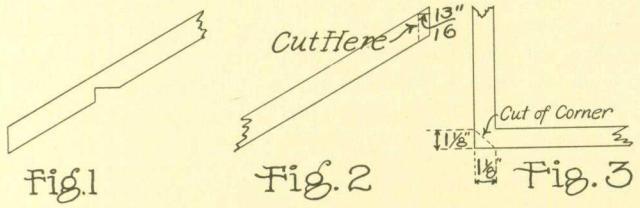
✣

Cutting Hip Rafters

AFTER reading the article by Mr. Neufeld, on fitting the hip rafter, which is very good, I thought it would be worth while to explain the method I use for the unbacked hip. I do not claim this method is original with me but I have never seen it in print or found a carpenter who used it. I find it especially convenient with rafters that have a projection as shown in Fig. 1.

After laying out the hip rafter in the usual manner cut it 13/16 inch short at the top end, measuring at right angles to the plumb cut as shown in Fig. 2. The next step is to measure back 1⅛ inch each way from the corner of the plate and cut off the corner of the plate as shown by the dotted line in Fig. 3. This will bring the corner of the hip in line with the top of the common rafters. These measurements are for the 1⅝ inch thick hip rafters.

R. C. RANDLE, Grayville, Ill.



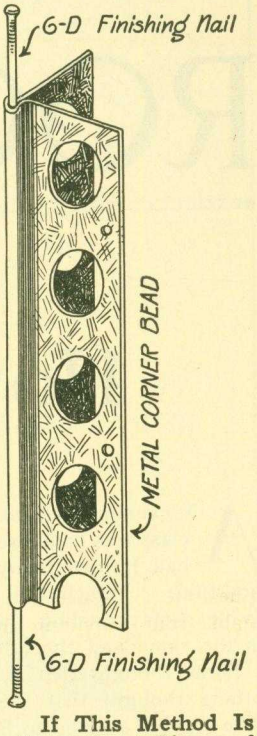
Here Is Illustrated a Method of Cutting Rafters for the Unbacked Hip Which Is Said To Be Convenient.

✣

Applying Corner Bead

HERE is a sketch of an idea I have used and found very helpful. When putting on corner bead, I slip a six-penny finishing nail into the end of the head. This holds the joint in line and prevents short kinks and crooks. It also makes it possible to use the short lengths of corner bead, which would otherwise be wasted, and still obtain a good straight job.

H. A. BUSSWITZ, Austin, Texas.



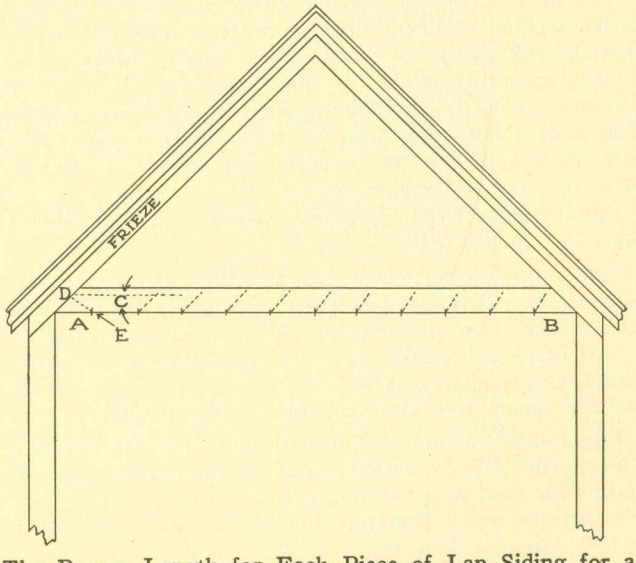
If This Method Is Used Short Pieces of Corner Bead Need Not Be Wasted.

✣

To Cut Siding for Gable Ends

IN cutting lap siding for gable ends it is often the custom to cut the longest length and get the length of each piece from the preceding one. A better way is to get the length of the first piece, A-B in the sketch, as usual, gauge the desired exposure, as at C, draw D-E, the bevel cut of the siding. Now the distance A-E is the difference in the length of each succeeding piece. Now if you divide A-B into parts as near A-E as possible, you will have the length of every piece marked on your first board and, when applied, the last piece will be the same width as the others.

FRED DIETEL, 2044 Lincoln Park, West, Chicago, Ill.



The Proper Length for Each Piece of Lap Siding for a Gable End Can Be Obtained by This Method.

INSTRUCTIONS *in* ROOF FRAMING

How to Figure Roof Areas

By JOHN T. NEUFELD

AN evening class in roof framing was in session. The class was composed mostly of carpenters who perhaps had framed many roofs. The instructor asked the question: "Which has the greater area, a hip roof or a gable roof providing the size of the building and cornice is the same and the pitch of the roof is the same?"

Some thought that the gable roof had the greater area, others thought that the hip roof required more roofing. The trouble seemed to be that they just "thought," but did not know.

In order to find out, a roof was cut out of cardboard, similar to the one shown in Fig. 3. Then the ends were taken off. Each end is composed of two right angle triangles, such as the triangle formed by the lines A B C. These triangles were turned around and placed in the position shown in Fig. 4, and the hip roof had been changed to a gable roof, and that without adding or taking away from the area.

A certain writer on estimating tried to show how to find the area of a roof, and the students who studied the lesson usually found the area of the roof if they hunted long enough. By his method the roof was divided into triangles and rectangles, and the area of each separate piece was figured. This method would discourage any man, especially if the roof was one of the recent broken up types.

The area of a roof may be found by a different and easier method. When figuring rafter lengths we found that the rafters have a certain fixed length for every foot of run, or, as we might say, for every foot of horizontal distance. This length changes with the pitch of the roof. The same thing holds true for the area of a roof. The area has a fixed relation to the horizontal area of the roof or to the area of the plan.

Fig. 1 shows a flat area one foot by one foot, which gives one square foot.

Fig. 2 shows a portion of roof covering a flat area of one square foot. This roof has a rise of 8 inches per foot run. This makes a roof one foot by 1.202 feet, having an area of 1×1.202 equals 1.202 square feet. Therefore for every roof having a pitch of 8 inches rise per foot the roof area is 1.202 square feet for every square foot in plan.

Fig. 3 shows a roof portion with a 10-inch rise per foot. This portion also covers an area of one square foot of plan. The roof area for this portion is 1×1.301 equals 1.301 square feet. Therefore the area of any roof with a 10-inch rise per foot run is 1.301 square feet for every square foot of flat surface.

Figs. 6 and 7 show a type of roof very often found at the present time. Two ways of finding the area are shown, both using the method described. The first is a little more accurate than the second.

Present day methods usually require tables for work of this kind. The following table may be used for finding the areas of roofs as well as for figuring rafter lengths:

Pitch	Rise per Foot Run	Length per Foot In Inches	Length per Foot In Feet	Roof Area per Sq. Ft.
1/8	3 inches	12.37	1.030	1.030
1/6	4 inches	12.65	1.054	1.054
1/4	6 inches	13.42	1.118	1.118
7/24	7 inches	13.83	1.158	1.158
1/3	8 inches	14.42	1.202	1.202
3/8	9 inches	15.00	1.250	1.250
5/12	10 inches	15.62	1.301	1.301
11/24	11 inches	16.28	1.356	1.356
1/2	12 inches	16.97	1.414	1.414
5/8	15 inches	19.21	1.601	1.601

Questions

(1) From the table give the roof area per square foot for a ¼ pitch roof.

(2) The area in plan for a certain roof is 456 square feet. What is the roof area for this roof if it has a 9-inch rise per foot run?

(3) A certain barn has a gable roof with 1-foot 6-inch horizontal overhang on all sides. The barn is 54 by 32 feet and has a ½ pitch. What is the roof area for this building?

(4) How many squares of shingles are required for a house 19 by 34 feet having a hip roof, ⅓ pitch and 18-inch overhang on the sides?

(5) If the length of rafter per foot run is 14.42 inches, what is the area of the roof per square foot of plan area, or flat area?

Answers

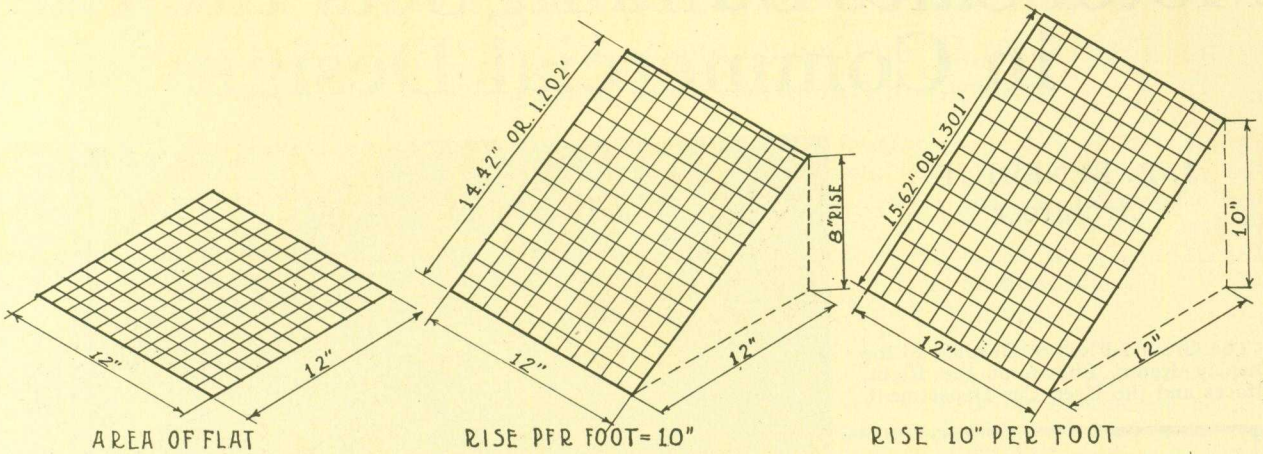
(1) Roof area per square foot is 1.118 square feet.

(2) Area in plan given 456 square feet. Area of roof per square foot of plan is 1.25 square feet. Area of entire roof is $456 \times 1.25 = 570$ square feet.

(3) Length of barn is 54 + 1 foot 6 inches + 1 foot 6 inches = 57 feet 0 inches. Width of barn roof is 32 feet + 1 foot 6 inches + 1 foot 6 inches = 35 feet 0 inches. Area of plan is $57 \times 35 = 1{,}995$ square feet. Area of roof is $1{,}995 \times 1.414 = 2{,}821$ square feet.

(4)) Area of roof is $22 \times 37 \times 1.202 = 979$ square feet. Therefore 10 squares of shingles would be required.

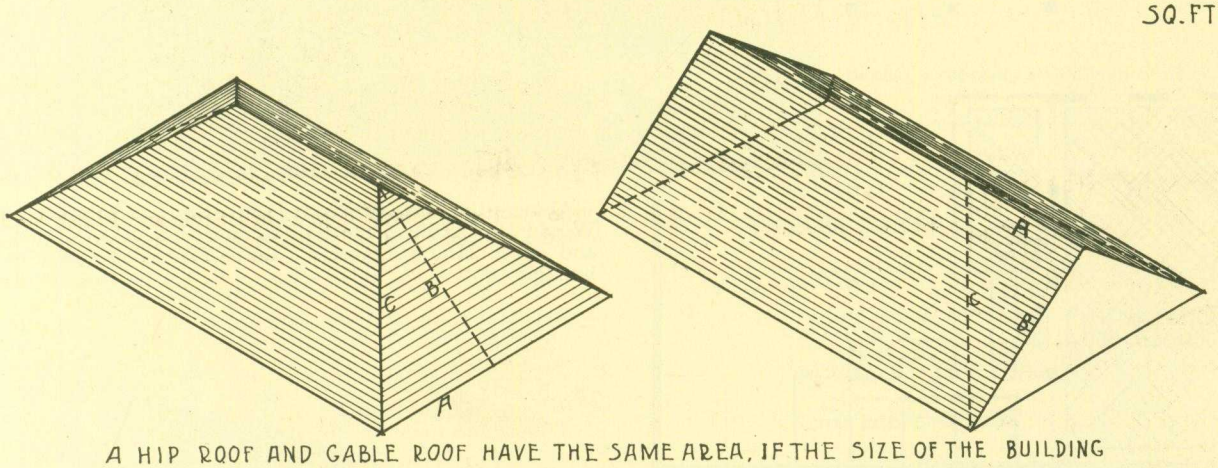
(5) 14.42 inches is 1.202 feet, therefore the area of roof per square foot of plan area is 1.202 square feet.



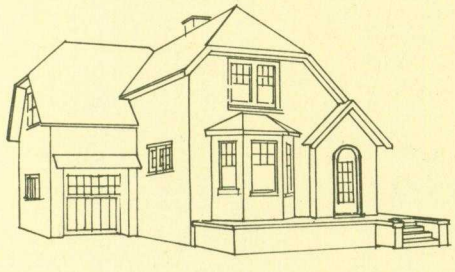
AREA OF FLAT
1' X1' = 1 SQ.FT

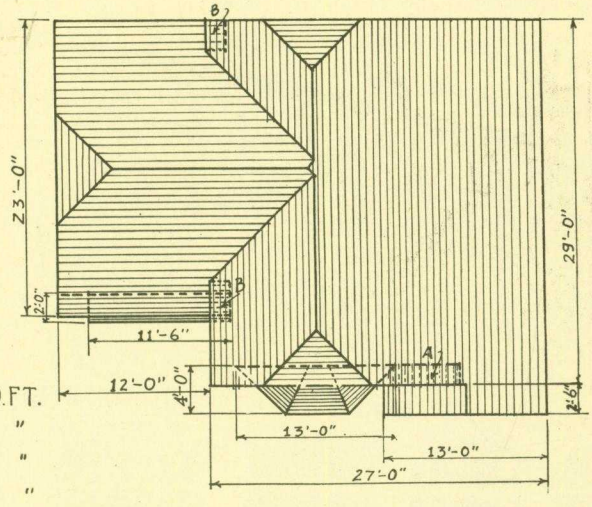
RISE PER FOOT = 10"
LENGTH PER FOOT RUN = 1.202 FT.
AREA OF ROOF = 1.202 x 1 = 1.202 SQ.FT.

RISE 10" PER FOOT
LENGTH PER FOOT RUN = 1.301'
AREA OF ROOF 1.301 X 1 = 1.301 SQ.FT.



A HIP ROOF AND GABLE ROOF HAVE THE SAME AREA, IF THE SIZE OF THE BUILDING AND THE OVERHANG IS THE SAME





GIVEN RISE PER FOOT RUN = 10"
AREA OF ROOF = FLAT AREA X 1.301

MAIN PART 29'-0" x 27'-0" =	783 SQ.FT.
SIDE ADDITION 23'-0" x 12'-0" =	276 " "
ROOF OVER SIDE DOOR 11'-6" x 2'-0" =	23 " "
ROOF OVER ENTRANCE 13'-0" x 2'-6" =	32½ " "
ROOF OVER BAY 13'-0" x 4'-0" =	52 " "
AREA "A" 1'-6" x 6'-6" =	9¾ " "
TWO AREAS "B" 2 x 1'-6" x 3'-0"	9 " "
	1185¼ SQ.FT.

AREA OF ROOF = 1185 x 1.301 = 1542 SQ.FT.

SIMPLIFIED

MAIN PART 31'-6" x 27'-0" =	850½
ADDITION 23'-0" x 12'-0" =	276
SIDE DOOR 11'-6" x 2'-0" =	23
	1149

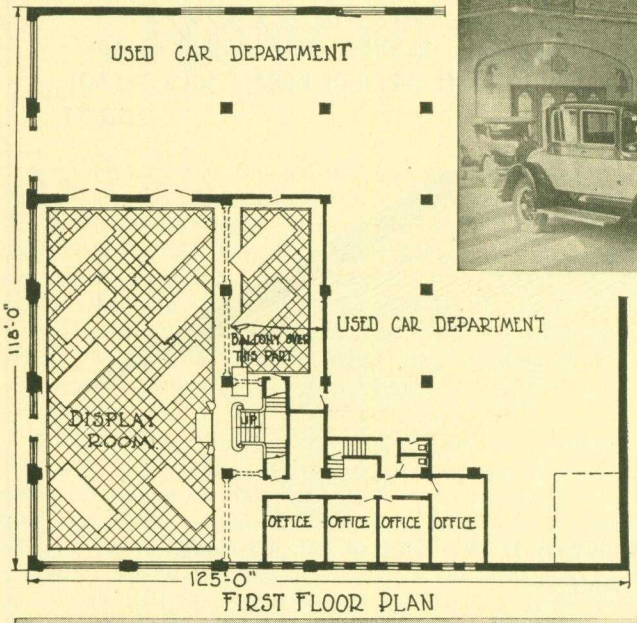
1149 x 1.301 = 1495 SQ.FT.

These Sketches Illustrate the Most Simple Method of Obtaining the Area of a Roof as Described on the Opposite Page.

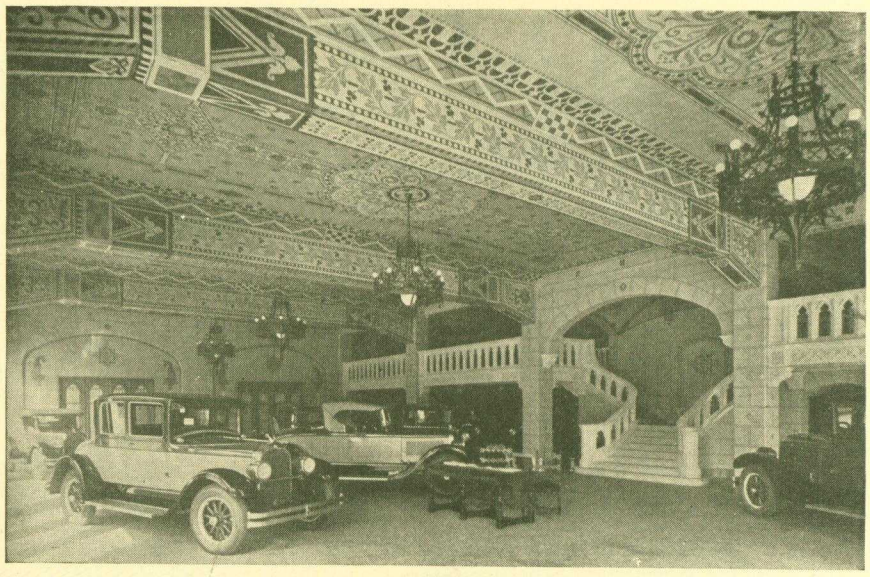
Motor Sales Building Sets the Pace in Commercial Design

J. B. BENEDICT
Architect

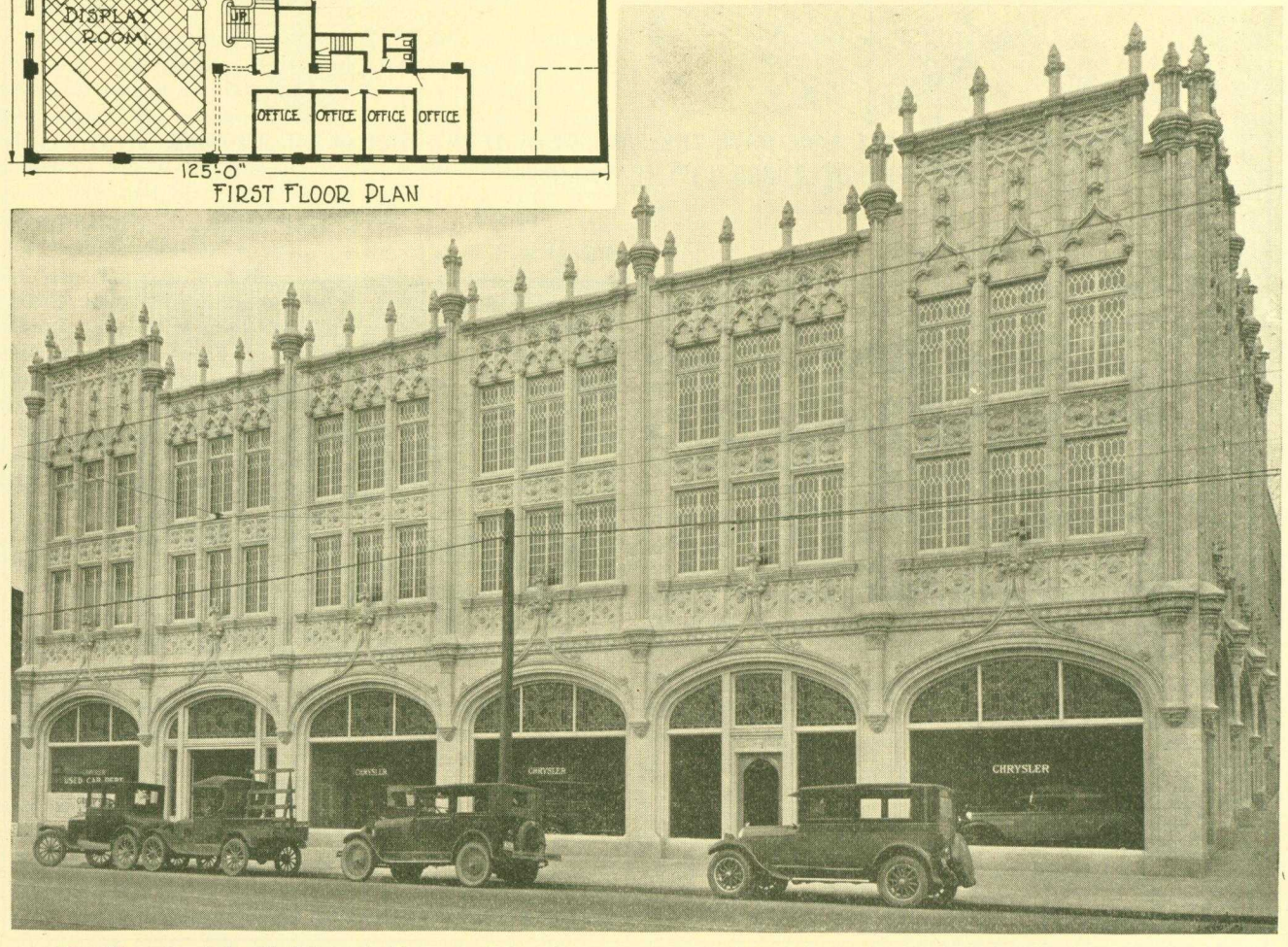
The Ground Floor is Devoted to the Display Room, Shown at the Right, Offices and the Used Car Department.



FIRST FLOOR PLAN



Above—the Display Room Is in a Style and Finish Which Would Do Credit to the Ball Rooms of Some of Our Finest and Most Modern Hotels. Left—First floor plan of the building.



The Chrysler Sales Building, in Denver, Colorado, Is an Example of the Type of Building Developed as a Result of the Tremendous Growth of the Automobile Industry. It sets a high standard of commercial architecture and plays a large part in beautifying its city. J. B. Benedict, architect.

Lumber Slogan Prizes Awarded

"Certified by Centuries of Service"—Is Slogan That Wins $5,000 First Prize in National Lumber Manufacturers' Association Contest

ANNOUNCEMENT has been made by the National Lumber Manufacturers' Association, Washington, D. C., that the winner of its contest for a lumber slogan is James Edwin Noble, Jr., of Sanatorium, Mississippi, who was awarded the first prize of $5,000. "Certified by Centuries of Service," was selected by the judges as the best of the 370,000 slogans entered in the contest.

The second prize of $2,000 went to Mrs. Dora Davis Farrington, Professor of Journalism at Hunter University, New York City, for the slogan, "Wood, Use It—Nature Renews It." Mrs. Maud Burt, of Marshalltown, Iowa, submitted the slogan, "Use It—Nature Renews It," for which she was awarded the third prize of $1,000. The following each received a prize of $500 for their slogans: Lawrence O. Nichols, Boise, Idaho, "Build Better with Better Lumber"; C. Stanley Garrison, Indianapolis, Indiana, "Wood Answers the Material Question"; Matthew Taplinger, Philadelphia, Pa., "Wood Answers the Material Question"; Lawrence J. Fuka, Madison, Wisconsin, "There's a Wood for Every Material Problem."

In addition to these grand prizes the balance of the total $15,000 prize money was divided into 50 regional prizes of $100 each, one in each state, one in Canada and one for outlying possessions. The winners of these prizes, and their slogans, are shown below.

State Prize Winning Slogans

ALABAMA	—Growing Trees for Growing Needs	—Miss Lila Killebrew, Newton, Ala.
ARIZONA	—A Growing Supply for a Growing Demand	—Clarence A. Crosby, Phoenix, Ariz.
ARKANSAS	—Always Growing	—Mrs. C. W. Thomas, Walnut Ridge, Ark.
CALIFORNIA	—Trees Without Number—Make It with Lumber	—Milton C. Armstrong, Los Angeles, Cal.
COLORADO	—Once Used from Necessity, Now Used from Choice	—Mrs. Edward Fair, Romeo, Colo.
CONNECTICUT	—Every Age Is the Wood Age	—W. Stewart Gocher, Fairfield, Conn.
DELAWARE	—The Growing Material	—Richard S. Moore, Laurel, Del.
FLORIDA	—Forever Growing, Forever Serving	—Eugene M. Kelcy, Fort Lauderdale, Fla.
GEORGIA	—Use Wood. More's Growing	—Roswell H. Akin, Griffin, Ga.
IDAHO	—Your Judgment Is Good—When You Build with Wood	—Edward Smith, Boise, Idaho.
ILLINOIS	—The More You Use It, the Better You Like It	—Charles Kreidt, Chicago, Ill.
INDIANA	—The Only Building Material That Grows	—Bernard Nix, Huntington, Ind.
IOWA	—It Grows as It Serves	—Alma Koepke, Waterloo, Iowa.
KANSAS	—Why Not Make It with Wood	—Leslie F. Clark, Sedgwick, Kan.
KENTUCKY	—Wood Will Solve Your Building Problems	—Edgar B. Stephens, Pikeville, Ky.
LOUISIANA	—If It's as Good as Wood, It's Wood	—Clarence W. Gray, New Orleans, La.
MAINE	——It Serves Us Right	—Mrs. W. V. Larrabee, Phillips, Maine.
MARYAND AND DISTRICT OF COLUMBIA	—Material Satisfaction	—Miss Janet W. Meetze, Washington, D. C.
MASSACHUSETTS	—Wood Solves the Material Question	—W. F. Foley, Worcester, Mass.
MICHIGAN	—Always in Demand—Always at Hand	—Wm. Crosby, East Jordan, Mich.
MINNESOTA	—Wood—A Growing Necessity of Material Importance	—Mrs. C. W. Buhse, Minneapolis, Minn.
MISSISSIPPI	—Ever Growing in Forest and in Favor	—Mrs. A. L. Burkett, Columbia, Miss.
MISSOURI	—Growing Forever—It's Uses and Source	—Harry Woodhead, St. Louis, Mo.
MONTANA	—Wood—Growing in Usefulness	—Gordon Vallandigham, Glasgow, Mont.
NEBRASKA	—Wood Ways Are Wise Ways	—Mrs. O. F. Vinzant, Grand Island, Neb.
NEW HAMPSHIRE	—The Stuff True Homes Are Made of	—Miss N. M. Johnson, Keene, N. H.
NEW JERSEY	—Wood Makes a House a Home	—Cajetan Morsack, West Orange, N. J.
NEW MEXICO	—Wood Grows for Our Growing Needs	—Vernon A. Wilson, Albuquerque, N. M.
NEW YORK	—For Building Needs, Lumber Leads	—Mrs. D. V. Nash, New York, N. Y.
NEVADA	—It's Better, Built of Wood	—Lorena Green, Reno, Nev.
NORTH CAROLINA	—For Building Needs, Lumber Leads	—Mrs. W. L. Peace, Laurinburg, N. C.
NORTH DAKOTA	—Materially Speaking, You'll Choose Wood	—H. O. Holm, Ryder, N. D.
OHIO	——Wood—When You're Materially Concerned	—Paul E. Russell, Fremont, Ohio.
OKLAHOMA	—Use Wood, More Will Grow	—Miss Agnes Russell, Vinita, Okla.
OREGON	—Use Wood—It Grows	—Ruth M. Currie, Portland, Ore.
PENNSYLVANIA	—Wood and Its Uses Keep Growing	—Robert Blair, Eddystone, Pa.
RHODE ISLAND	—Wood Is so Good They Imitate It	—Anita Bryant Chase, Newport, R. I.
SOUTH CAROLINA	—There's Individuality in Wood	—C. M. Lane, Paris Island, S. C.
SOUTH DAKOTA	—Materialize Your Ideas in Wood	—Harold Atz, Rutland, S. D.
TENNESSEE	——A Growing Necessity	—Mrs. Betty Prince, Knoxville, Tenn.
TEXAS	—Wood for Satisfaction	—Beatrice Alderson, Bonham, Texas.
UTAH	—Every Age an Age of Wood	—Gustive O. Larson, Cedar City, Utah.
VERMONT	—Imagine a World Without Wood	—La Verne Thayer, Brattleboro, Vt.
VIRGINIA	—Make It of Wood—You'll Like It Better	—Mrs. C. C. Bly, Leesburg, Va.
WASHINGTON	—Always at Hand for Every Demand	—L. H. Hough, Tacoma, Wash.
WEST VIRGINIA	—Wood, Ever Ready, Always Growing	—Mrs. Zenada Wellman, Huntington, W. Va.
WISCONSIN	—Wood Serves, Survives and Satisfies	—H. P. Sigwalt, Milwaukee, Wis.
WYOMING	—Wood of Ages, Still Ages of Wood	—James R. Brown, Sheridan, Wyo.

OUTLYING POSSESSIONS

CANAL ZONE	—Use Wood for Material Economy	—Kathleen McGuigan, Balboa Heights, Canal Zone.
CANADA	—There's Nothing so Good as Durable Wood	—W. A. Gordon, Port Dover, Ontario, Canada.

Capitalizing the Future

(*Continued from page 83*)

tually through defalcation of interest on bonds which he took in exchange. But while Carnegie was a great leader, Morgan had the keener vision. He foresaw a coming era in which dozens of mighty corporations would create values where there were none before.

But the situation today is far more complex than it was in Carnegie's time. Then the ruination of an industry was a matter of great importance. Now our commercial advance is by the destruction of old industries and the creation of new ones. The building up of the automobile business proceeded ruthlessly over the remains of what were once successful buggy and wagon manufacturing concerns. Steel and cement have profited largely at the expense of lumber and the introduction of artificial silks brought distress to the manufacturer of cotton goods.

The present is a time when no one can tell what will be the ultimate effect of a new idea. Bobbed hair nearly ruined the hairpin industry. Short skirts doubled the sales of stockings. The reward is a golden one to whichever manufacturing group wins out in the never-ending battle to dictate style.

A while back Brussels lace was in such high favor that even the hands of the men were half hidden by it. Then the French Revolution came along and people turned to simplicity. Old laces that were almost as precious as the family jewels were either packed away or handed over to the servants. Just as the lace-makers and wig-makers of yesterday ran into difficulties most unexpectedly, so will the trades and crafts of tomorrow experience even more sudden reverses.

Nothing seems to be lasting. Neither climate, nor prosperity, nor depression, nor supremacy in any line or field—except when we change promptly with the times. Recently mass production had to cease until the element of style had been properly taken care of. Ziegfield started the "Follies," but soon there were so many good imitations that the innovation lost much of its novelty. Oranges and nuts were always with us, but the market for these products was greatly restricted until a few farsighted business men saw an opportunity to build up an extensive system of chain stores and stands.

Next we will find ourselves being educated to the virtues of pineapple juice and the necessity of buying collars that suit the shape of the face and the length of the neck. Various forces are always at work compelling us to change both our minds and our habits. Lately the statisticians have poured forth figures to prove that it is safer for us to invest our money in stocks than in bonds provided we diversify our selection.

It was the blizzard of 1888 that brought about a demand for the abolishment of overhead wires in New York City. No one can tell how far we are going in any direction Such practices as taking out teeth, tonsils and appendix are likely at any minute to bring about a reaction. The development of the canning industry and the delicatessen has so simplified domestic cooking that married women are going in largely for commercial pursuits.

The complexity of the current movement in industry has overwhelmed the capacity of the average person to comprehend the full meaning of what is happening. Never have contrasts been so inexplainable. Commercial crime is so prevalent that fraudulent practices now bring a yearly loss of approximately four thousand millions of dollars. Nevertheless this widespread failure of law and education to protect the individual does not seem to bother us in the least. We are living on the cream of our resources—scalping the soil, recklessly exhausting irreplaceable mineral supplies, and using wood faster than we grow it, and yet we are undisturbed.

In the meantime, notwithstanding the slackening of trade and the increase in unemployment in recent months, bank and insurance figures show a continuation of the astonishing expansion of savings. In the field of installment sales, it is also amazing to find that "overdues" are now appreciably less than they were last year at this time when business was moving along serenely. Surely it must be clear that there is no wisdom in a policy of stubbornly opposing the sweep of the tide. It appears that we must focus our attention on the national picture—think in terms of total production and total wealth, rather than engage in worry because the benefits of good times have not yet spread to every crack and corner of our vast land.

The problem of production was our chief concern 10 or 20 years ago. After overcoming the obstacles in that field, we started in on the question of distribution, and we are now trying to write the answer. Our first step was to stabilize purchasing power by improving the credit situation and reducing the dangers of inflation, and this was accomplished through the creation of a remarkable Federal Reserve System. Then in rapid succession came the installment plan of selling, hand-to-mouth buying, and a little later on a policy of extending large loans to foreigners. But notwithstanding all of this, and in addition, the introduction of the element of style to make last year's models obsolete, consumption has failed to catch up with production.

Now we enter an even more thrilling era. The battle for the consumer's dollar is to continue with increasing force. It seems that we must have both mass production and mass distribution under the one control. Indications of this trend are evident in the plans of the big mail-order houses, which call for the organization of chain systems of retail stores. Working from the other end the chain stores are commencing to go in for their own manufacturing.

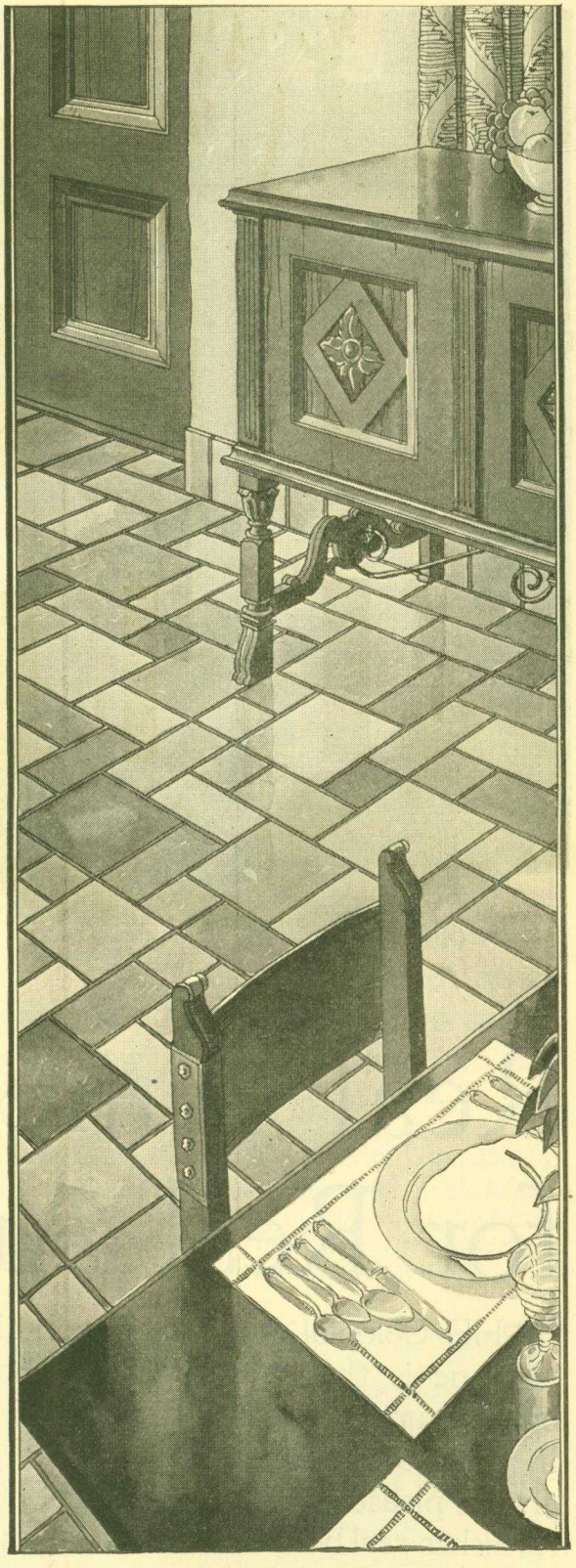
Where the little fellow will get off in this hectic journey is something probably no one can answer. Nor can we tell what the effect on American business will be when the interest that Europe must pay us commences to exceed the total of her yearly borrowings. Surely there will come a time when we will be forced to take goods from the foreigners in lieu of money.

The rise of our country to world preeminence in such a short span of years constitutes the most absorbing story in human history. Our accomplishments have transformed life and industry throughout the entire world. Perhaps too many of us are like the old gentleman who resigned from the Patent Office half a century ago because, as he said, "everything had been invented that could be invented." Perhaps we are only at the threshold of achievements that will surpass everything that has gone before.

And yet one may ask if there is any harm in suggesting the possibility of our becoming just a bit over-confident at times. An unswerving faith in America's destiny is both proper and essential. But we have a long way to travel in this new-made country before we can afford to turn our attention from legitimate business to the precarious occupation of capitalizing an uncertain future through the manipulation of stock-market prices.

Some of the kind of wealth we are now creating overnight can disappear just as quickly. Hand-to-mouth buying removed the menace of inflated inventories. It almost seems that we need some hand-to-mouth buying of securities for cash to remove another danger from inflation in a different quarter.

Its Beauty and Permanence attract buyers instantly



ONCE UPON A TIME a white tile bathroom was a novelty. It was a big selling point for a house. Now white tile bathrooms are taken for granted—houses without them are not taken seriously.

But white tile bathrooms are just a starting point. Now a bathroom could be done in color to attract attention. And tile is being used for every room in the house—there are colors to harmonize with any surroundings, patterns for every possible use. There is tile for the kitchen, the breakfast room, the pantry—bright, cheerful, easily cleaned. There is tile for the dining room, the billiard room, the sun porch, the stairs—a delightful note of individuality.

Keramic tile is a good investment for any builder. It lends to everything in the house an air of beauty and permanence, which is obvious evidence of good construction to every prospective purchaser. Keramic tile increases the value of your house as no other floor and wall material can.

ASSOCIATED TILE MANUFACTURERS
200 Graybar Building
420 Lexington Avenue, New York, N. Y.

KERAMIC TILES

ALHAMBRA TILE CO., Newport, Ky.
AMERICAN ENCAUSTIC TILING CO., Ltd. Zanesville, Ohio
CAMBRIDGE TILE MFG. CO., Covington, Ky.
FEDERAL TILE CO., Columbus, Ohio
GRUEBY FAIENCE & TILE CO., Perth Amboy, N. J.
MATAWAN TILE CO., Matawan, N. J.
MOSAIC TILE CO., Zanesville, Ohio
NATIONAL TILE CO., Anderson, Ind.
OLEAN TILE CO., Olean, N. Y.
THE C. PARDEE WORKS, Perth Amboy, N. J.
ROSSMAN CORPORATION, Beaver Falls, Pa.
STANDARD TILE CO., Zanesville, Ohio
THE SPARTA CERAMIC CO., East Sparta, Ohio
UNITED STATES ENCAUSTIC TILE WORKS Indianapolis, Ind.
UNITED STATES QUARRY TILE CO. Parkersburg, W. Va.
WHEELING TILE CO., Wheeling, W. Va.

Real American Homes for Real American People

THE Colonial style of home built of Pine is the true American home, both in architecture and in sturdiness. In addition to architecture that will always please the eye, this type of house furnishes real home comfort against our temperature extremes.

Built in 1808, the Hope House at Chaplin, Connecticut, pictured above, is an example of the everlasting charm of Colonial architecture and the long life of Pine construction.

Pine Homes Rich in Tradition

Homes of Pine have a wealth of American tradition. John Alden wooed Priscilla in a Pine log cabin. The first house in America and the oldest house now standing were built of Pine. The

SHEVLIN PINE

Longfellow House, Mary Washington Home and the historic Mount Vernon Mansion are among the nation's famous Pine homes.

The recent craze for flimsy building and novel architecture seems to have passed. Architects and builders are turning again to homes of sturdy Pine like those of our ancestors.

Pine Construction Economical

It is not merely sentiment for old things that is causing this but a practical dollar and cents attitude as well. Pine construction has proven itself to be the most economical in the long run, giving more years of service for each dollar expended.

Plentiful Supply of Pine

There is no shortage of the lumber that built the homes of colonial days. A sufficient supply of carefully selected Shevlin Pine is available to supply the nation for many years.

Timber is a crop like any agricultural growth. When it ripens, it should be harvested and utilized for the purpose for which it is best suited.

Conservation of the mature timber crop is false economy. Timber deteriorates if not cut when matured and is subject to various natural destructions.

Detail of Pine woodwork on first floor hall doorway of the Cowles-Lewis House, built about 1760 at Farmington, Conn.
(From White Pine Series of Architectural Monographs)

You may obtain Shevlin Quality Pine from leading lumber dealers throughout the nation in five varieties: Shevlin California Sugar Pine, Shevlin Northern White Pine, Shevlin Norway Pine, Shevlin Pondosa Pine and Shevlin California White Pine.

Learn More About Pine

The booklet, "Specify Shevlin Pine," contains information which we believe will be of interest to you—the uses of Pine, its characteristics, physical properties, allowable stresses and other information. Just fill in the convenient coupon below, mail it to us and you will receive this booklet.

Shevlin, Carpenter & Clarke Company
903 First National-Soo Line Bldg., Minneapolis, Minn.
Chicago Sales Office: 1866 Continental & Commercial Bank Bldg.
San Francisco Sales Office: 1028 Monadnock Building.
Sold in New York by N. H. Morgan, 1205 Graybar Bldg.

Shevlin, Carpenter & Clarke Company
903 First National-Soo Line Bldg.,
Minneapolis, Minn.
Please send me the booklet, "Specify Shevlin Pine."

NAME_____

BUSINESS_____

ADDRESS_____

CITY_____

SHEVLIN PINE

LAW for the BUILDER

A Slight Variation

THE seller had sold goods to the contractor, to be paid by cashier's checks, on the Tela National Bank. A few days before the delivery date the contractor hustled up to the cashier's wicket.

"I'm a little late on that payment, if I depend on the mail," the buyer observed, "so I'll get you to wire the money instead."

The money was wired, the goods were shipped, and one of the seller's creditors attached them in transit.

"I bought the goods and paid for them, and the title's passed to me," the contractor contended.

"Not when you didn't pay for the goods in the manner specified in your agreement," the creditors retorted, but the Montana courts (in 235 Pacific Reporter, 767) ruled in favor of the buyer.

"The mere fact that payment was not made exactly as required by the contract of sale will not prevent the title from passing," the court ruled.

✣

Shipped and Reshipped

IF a seller sells and ships goods, and then learns that the buyer is insolvent, he may, as a general rule, retake possession of the goods as long as they are in the hands of a common carrier, under what is known as the right of stoppage in transit.

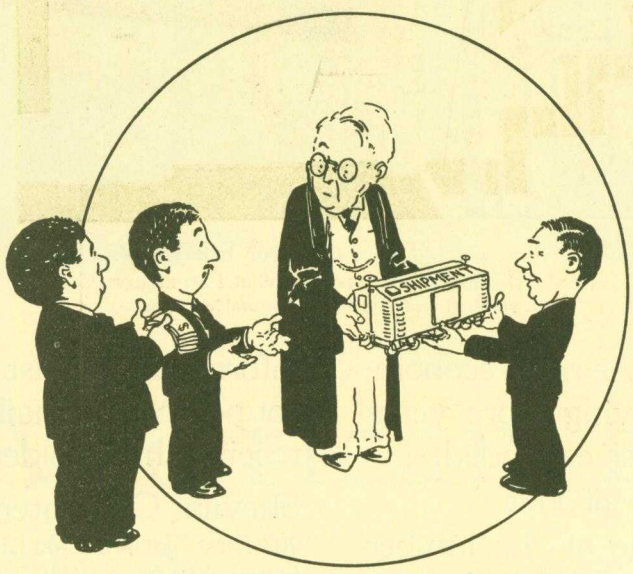
On the other hand, if the goods arrive, and the seller resells and reships to a third party, the original seller cannot then reclaim the goods as the original transit has ended and a new transit has begun.

All this is very elementary business law, but a more intricate point was involved in the case reported in 270 Federal Reporter, 503, where the evidence showed that the seller shipped goods to Pittsburgh, the buyer, for a fraudulent purpose, had the goods reshipped to himself in New York, under an assumed name, and the seller attempted to stop the goods in transit between Pittsburgh and New York.

"Any lawyer's office boy of three weeks' standing knows that a reshipment breaks the original transit and does away with the right," the buyer protested.

"Not when the reshipment is made to the buyer himself and for a fraudulent purpose," the seller retorted, and the court, in the case referred to, ruled in his favor.

"His reconsignment of the goods to himself, although under an assumed name, was a declination by him to accept delivery at Pittsburgh and an affirmation of his intention to accept delivery at New York," the court said.



"The Mere Fact That Payment Was Not Made Exactly as Required by the Contract Will Not Prevent the Title from Passing," the Court Ruled.

The Worthless Promise

"I COULDN'T pay cash right now, if I was to be hung for it, but I'll endorse over Henry Smith's note for $100 in my favor," the customer suggested, and the builder asked the standard question:

"Is Smith good for it?"

"Good as gold," was the positive reply. "Owns his house and hasn't got the scratch of a pen against a thing."

"Endorse your note, then."

"Of course, I want you to agree not to come back on me, but to look to Smith when the note falls due," the customer urged.

"Yes, I'll agree to that," the builder concurred, the note fell due, the builder ascertained that Smith wasn't worth suing—and entered suit against the customer as endorser of the note.

When the case came to trial, the customer went into the witness box, and started in to tell of the agreement between the builder and himself in reference to the note.

"I object, your honor. The written endorsement on the back of the note must speak for itself and cannot be varied by verbal evidence of any different arrangement," the builder's lawyer objected.

"Objection sustained, and evidence rejected," the judge ruled—and the judge was right.

"It is well settled that, as a general rule of law, oral evidence is not admissible to contradict or vary the terms of a written contract. And ordinarily, the written contract that is entered into by an indorser when he makes an unrestricted indorsement cannot be contradicted or varied by parol (oral) evidence," says one state court in laying down the rule.

✣

The "Unsigned" Note

"MR. HENRY W. JONES, Town. Your account for $78.33 is past due, and I would be glad to have an early settlement, as I have some large bills falling due at the end of the present month," the builder wrote.

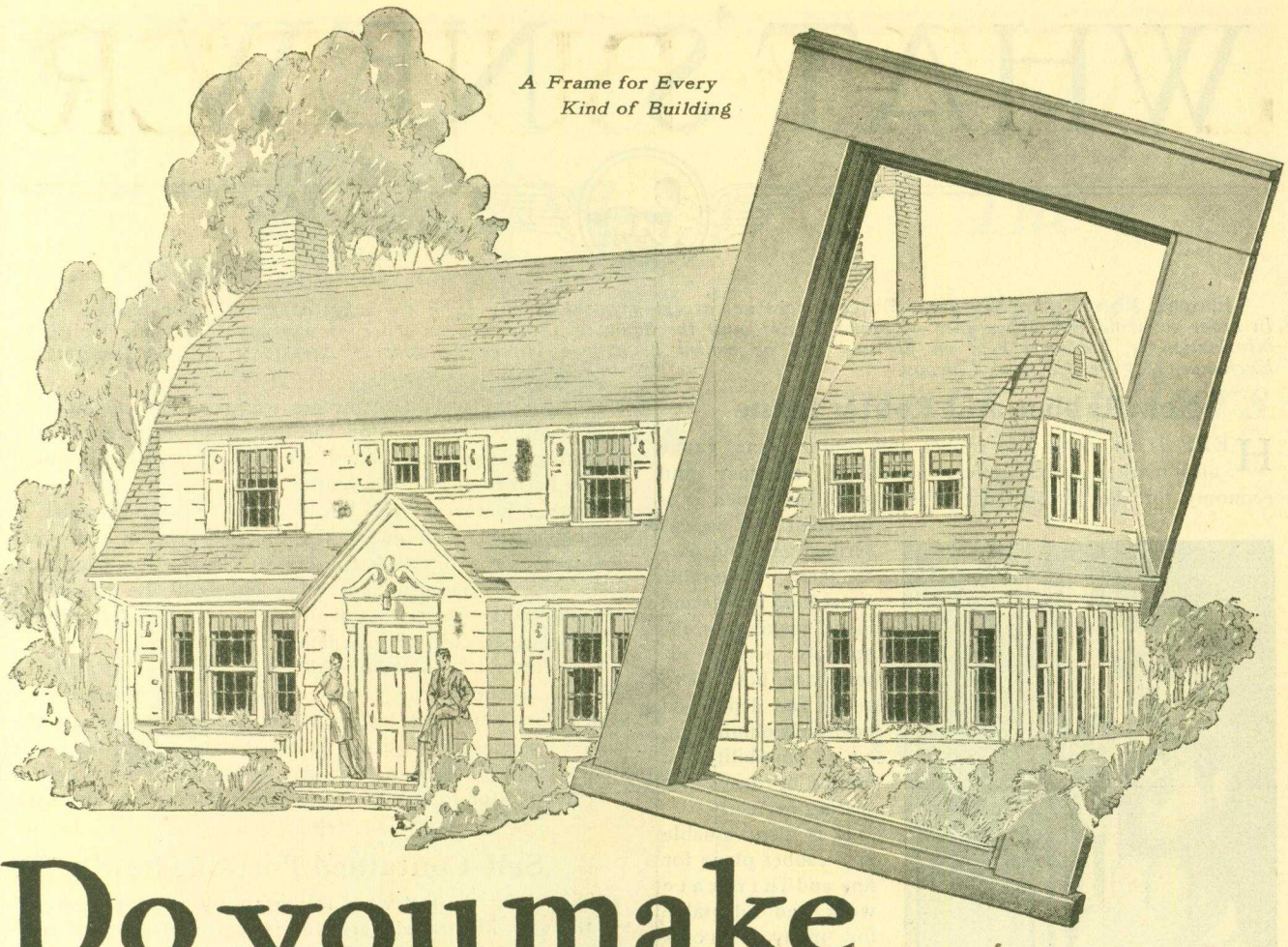
"I cannot pay cash at the present time, but I am enclosing my note for one month to cover your account," the customer replied.

The note was enclosed, was properly dated, and read as follows:

"One month after date I, Henry W. Jones, promise to pay to A. B. Builder the sum of Seventy-eight and 33/100 Dollars at the Mercantile Bank here."

The entire note was in the customer's handwriting, but it was not signed at the end.

(*Continued to page 162*)



Do you make your own Sash?

Of course you do not make your own sash.

Why not? Because specialization gives you ready-made sash that are better and cheaper than you could possibly make them.

Actual figures and a study of each operation shows that more delicate and accurate milling is required to make tight-fitting window frames than to make the same kind of sash.

And specialization is *now* making it possible for contractors everywhere to get Andersen Window and Door Frames* at less cost than they can make frames of equal quality.

Soon, making your window frames will be as obsolete as making your own sash.

Ask the Andersen dealer to "show you" or fill out and mail the coupon below.

*Look for the *Andersen* Trade Mark on every frame.

Distinctive Features

Patented, noiseless, long wearing *Andersen pulleys* used exclusively.

Genuine soft *White Pine* sills and casings—last a lifetime.

Patented, exclusive *weather-tight* features including groove for wide blind stop.

Absolute *accuracy* of milling.

5 A Frame *up* in *10 minutes.*

6 *Standardized styles* and *sizes*, convertible for all architectural needs.

7 *Nationally* known and *distributed.*

8 *Dependable* because guaranteed by a reliable manufacturer.

Sold by Leading Building Material Dealers

Andersen FRAMES

ANDERSEN LUMBER COMPANY
Box 2105, Bayport, Minnesota.

Please send me without cost or obligation the material checked in squares on this coupon.

- ☐ Set of folders describing construction and uses of Andersen Frames.
- ☐ "How to Make Your New Home More Comfortable"—an illustrated booklet of interest to all home builders

Name_____

Business_____

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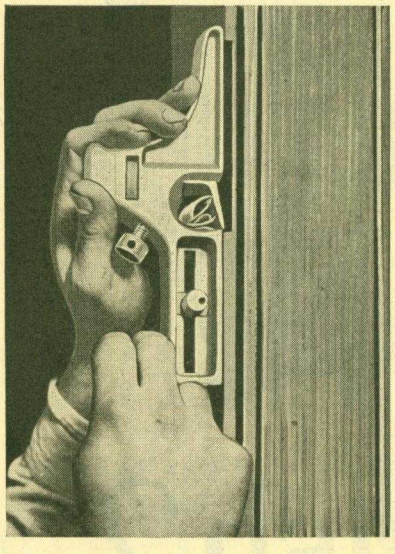
WHAT'S NEW?

EDITOR'S NOTE: *The* AMERICAN BUILDER *does not accept payment in any form for what appears in our reading pages. In order to avoid any appearance of doing so, we omit the name of the maker or seller of any article we describe. This information is, however, kept on file and will be mailed to anyone interested; address* AMERICAN BUILDER *Information Exchange, 1827 Prairie Ave., Chicago.*

New Rabbet and Router Plane

HERE is an up-to-date rabbet and router plane, gauge and marker which offers simplicity, accuracy and economy for the performance of the work for which it is intended. It is described as being particularly adaptable for setting hinges and locks, making an absolutely perfect insert base, both as to width and depth and positively eliminating any possibility of hinges or hasps not seating perfectly.



A Highly Simple and Accurate Rabbet and Router Plane Adaptable to Various Kinds of Work.

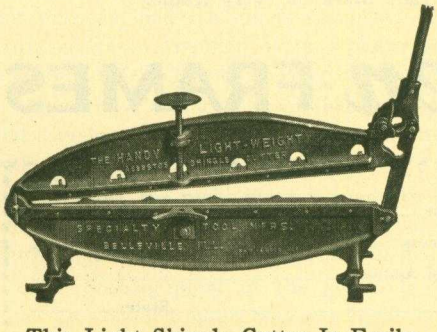
It is also valuable as a rabbet plane for fine and intricate work and adaptable for many places where other planes could not reach. The gauge is also used as a handy square. The bit is adjustable up and down and has a range of ½ inch below the bottom surface running exactly the same width, ¾ inch, as the base of the plane. The weight of the complete plane is only 12 ounces.

✣

Light Efficient Shingle Cutter

FOR contractors and roofers who apply asbestos shingles the tool shown here will be a welcome addition to available equipment. This is a new shingle cutter which, because of certain new features, is light in weight and easy to handle, while doing thoroughly effective work.

The principle of hinging two knife bars at one end and a toggle power movement at the other produces a suitable power leverage and provides a greater angle in the relation of the two blades during the shearing motion. This reduces the stress upon the knife bars, thereby lessening the springing tendency, and permits the lighter construction. Formerly a large percentage of the weight of cutters was required, not against any possible breakage of the tool, but to prevent the springing of the knife bars, which would be detrimental to the performance of the cutter.



This Light Shingle Cutter Is Easily Handled on the Roof, But Is Very Effective.

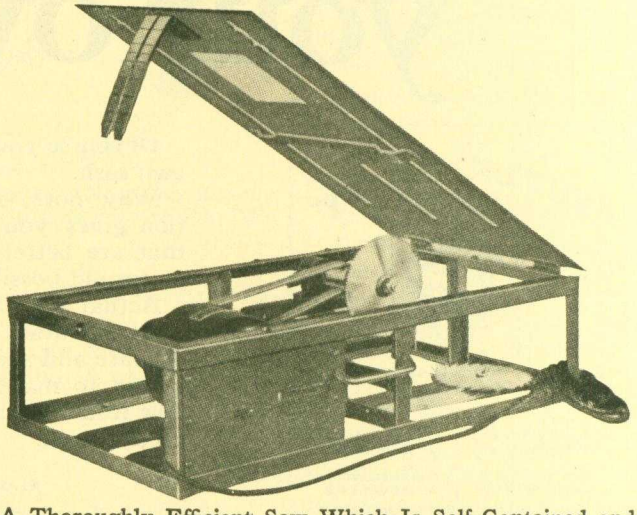
Another feature of this cutter is the type and quality of the blades. The double bevel, or "V" shaped, knife has double material or stock to support the cutting edge and, therefore, maintains a keen edge longer. The quality of the material, however, is equally as important and requires a special steel, correctly hardened and tempered.

This cutter accommodates all styles and sizes of asbestos shingles, including the various thicknesses of tapered shingles. It can be operated by either pulling or pushing the handle, whichever position is most convenient, and the blades are visible from both sides, making it unnecessary for the operator to step over the cutter for making any cuts.

✣

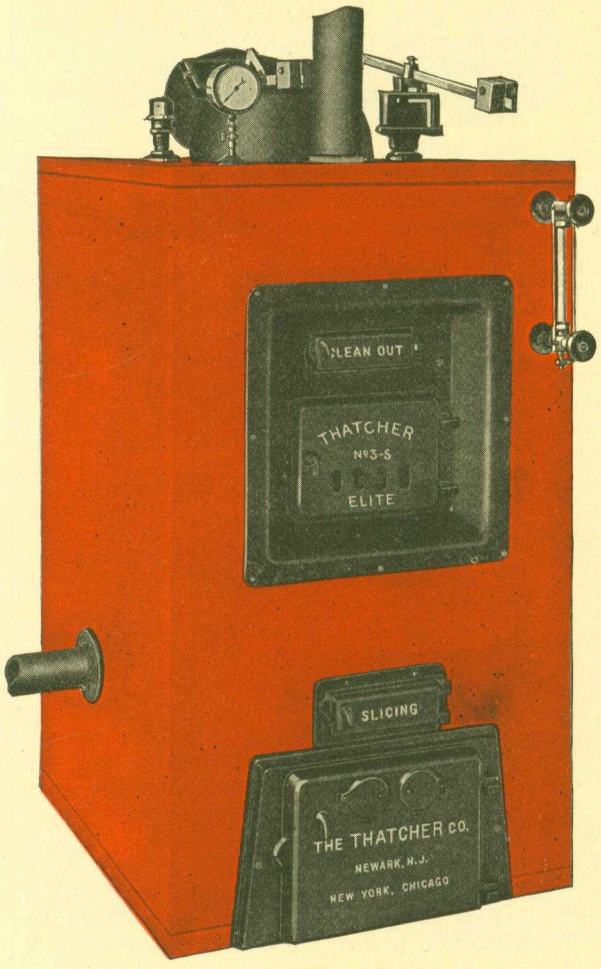
Self-Contained Portable Saw

JUST about the last word in portability is what describes the saw illustrated here, for it is completely self-contained and is provided with a handle so one man may carry it like a piece of baggage. At the same time, when in operation, it is a machine which can be depended upon for speed and accuracy. It is well constructed and sturdy and will handle lumber up to three-inch thickness.



A Thoroughly Efficient Saw Which Is Self-Contained and Can be Carried Like a Piece of Baggage Where Desired.

This saw is equipped with a ¼ H.P., high efficiency motor, mounted on a movable base, and equipped with 10-foot extension cord for making the power connection. It is controlled by a tumbler type, safety switch. The power is transmitted to a special alloy steel saw shaft mounted on genuine Swedish bearings, by means of special, endless, high speed belt. Regular equipment includes a gauge for grooving, crosscut and ripping gauges graduated to 90 degrees and interchangeable for right or left hand use, and crosscut and rip saws.



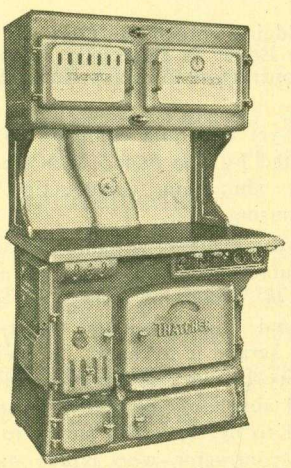
The Vogue of Smart Cellars calls for

THATCHER

"Elite" Boilers

The new Thatcher "Elite" appeals particularly to women. It is so bright and cheerful—so smart. Fully encased in a scarlet enamel jacket, the new "Elite" is easy to keep clean. Due to its "Staggered Fire Travel"—a feature of all Thatcher boilers—the new "Elite" is economical and efficient in operation with either coal or oil as fuel. Write for booklet.

THE THATCHER COMPANY
39-41 St. Francis Street - - - Newark, N. J.
New York: 21 W. 44th St. Chicago: 341 No. Clark St.



And

THE THATCHER COMBINATION RANGE

Aside from the supplementary heat to be derived from a coal range—there are many women who prefer it for cooking. Thatcher Enameled Combination Ranges offer both coal and gas facilities in a single compact and attractive unit—designed with an eye toward economical operation and ease of cleaning.

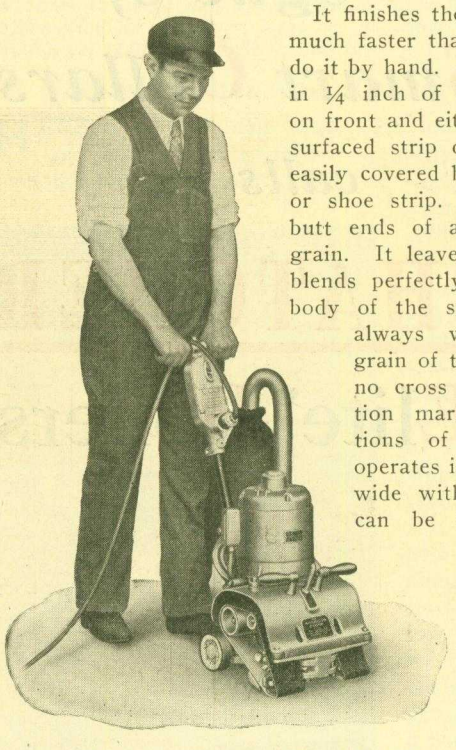
THATCHER

BOILERS • FURNACES • RANGES • RADIATORS

Floor Edger Perfected

EVERY floor man who has ever done hand scraping and finishing has looked forward to the time when some machine would make this hand work unnecessary, for it is the hardest and most costly sort of labor. Yet such labor has always been necessary, ever since sanding machines have been in general use, in order to finish the edges of floors which could not be reached by the drum sander.

Now, as may be seen from the illustration, an edger has been perfected and placed on the market which entirely changes all this. The manufacturers list "ten exclusive features" for this machine. They are:



An Edging Machine That Is More Than an Edger Is Especially Adapted to Small Contractors to Finish Entire Floors.

It finishes the edges complete much faster than an expert can do it by hand. It surfaces within ¼ inch of 90-degree angles on front and either side, the unsurfaced strip of ¼ inch being easily covered by quarter round or shoe strip. It surfaces the butt ends of a floor with the grain. It leaves a finish which blends perfectly with the main body of the sanded floor. It always works with the grain of the wood, leaving no cross scratches, vibration marks or imperfections of any kind. It operates in space 28 inches wide with the grain. It can be fitted with two grades of abrasive belts so that it roughs and finishes at one time. It has a powerful vacuum system that effectively collects the dust. It is powerful enough to be practical yet light and compact enough so it can be easily transported by one man. It is made of the highest grade material, aluminum construction throughout, including motor housing.

While the machine is named as an edge sanding machine the manufacturers state that it is a real floor surfacer and capable of completely finishing a room, center, edges, closets and door openings, faster and better than three men can scrape it by hand. It weighs but 98 pounds, but the quality of work is smooth and steady and the surface produced absolutely perfect. Because of this broad ability it is said to be especially suited to the needs of the small building contractor who builds only a few houses each year and usually does the work himself. If he does not care to invest in a large, fast-cutting floor machine, he may do all of his floor work, including edges, with this machine without hand work.

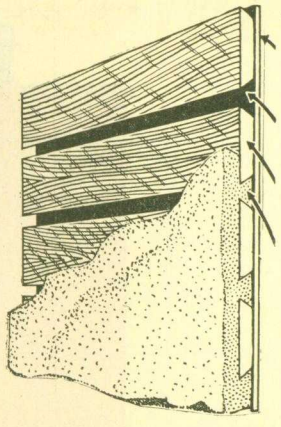
✣

New Low Price on Insulating Lath

FOR years, there has been on the market a plaster base of bevelled wood lath and fibre backing. It has been a favored plaster reinforcement of many of the leading architects, contractors, plasterers, and builders. They have recommended and demanded it because it insulates the wall, strengthens the wall, and is designed to hold the plaster wall intact and free from cracking over a period of years. The price of this special material has always been $45.00 to $50.00 per thousand feet, and at that price has been in good demand.

Now, however, the manufacturers announce a cut of 50 per cent. At $25.00 per thousand feet this is one of the building sensations of 1928.

This insulating lath is a combination of units. The base consists of heavy waterproof fiber board. This is given a coat of asphalt mastic, making it proof against moisture. Into this asphalt mastic, beveled wood bars are imbedded under pressure.



This Base of Bevelled Wood Lath and Fiber Backing Has Been Reduced 50 Per Cent in Price.

These combined units produce a plaster reinforcement of great strength and rigidity; and a shield that is impregnable against the elements.

The wedge-shaped interlocking wood lath bars hold the plaster in an inverted wedge clasp with a grip that lasts for decades. This method of interlocking the plaster and the lath reinforcement welds the entire wall and ceiling into a single unit of strength and rigidity. In addition, it provides a wall that has positive sound-deadening qualities, enabling the builder of apartments to get higher rentals, assuring more perfect acoustics in public halls, and guaranteeing to the home builder a new degree of refined privacy.

This insulating lath is said to save 25 per cent or more of the plastering materials, because the wedge-lock key construction requires less plaster, and the asphalt fiber board backing prevents plaster from going through and falling down.

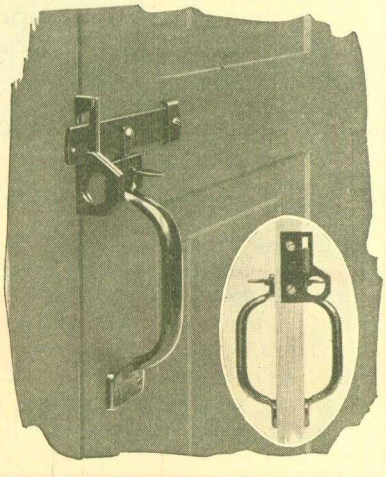
It is claimed that the use of this lath saves fuel bills. Because it is such a good non-conductor of heat and cold, a more uniform temperature is easily maintained.

Some interesting information will be mailed to those of our readers inquiring about this insulating lath material now selling at half its former cost.

✣

New Improved Door Latch

A NEW latch has recently been added to the line of a well-known manufacturer. It is stated that this latch possesses several features that make it unusual. Two large and yet graceful handles are provided, one for each side of the door. The thumb pieces are close enough to the handles to make unlatching easy for the smallest hand. A hole, ample for any size padlock, is provided in both the slide and the strike. The patented "positive" latching feature of this line of locks is also incorporated in this new type. No matter how hard the door is slammed this latch never fails to catch and hold the door shut, it is claimed.



Here Is a New Door Latch With a Number of Unusual Features.

LONG LIFE

LONG lives . . . . Busy lives . . . . Years and miles of bending their speed, their power, their endurance unceasingly to the building of business . . . .

That is the story, unchanging, told by Graham Brothers Trucks and Commercial Cars everywhere—all types, all lines of business.

Thousands upon thousands go on year after year . . . . 100 . . . . 200 . . . . 300 miles a day . . . . fast, dependable, economical . . . . good roads and poor . . . . good drivers and bad. Your local Dodge Brothers Dealer will show you the right truck, body type and chassis size, to fit your requirements.

He will tell you how long life is *built into* Grahams *at the factory*—how other business men, your neighbors, your associates, your competitors, are getting this long life out of Grahams.

He will show you his complete service facilities. And he will surprise you when he tells you the low prices.

GRAHAM BROTHERS TRUCKS

Sold and Serviced by Dodge Brothers Dealers Everywhere

Built by Truck Division of Dodge Brothers, Inc.

Sound Deadening Tile

SOUND is reflected back from ordinary wall and ceiling surfaces much as light is reflected by mirrors. Because of the constantly increasing noise of modern cities the control or deadening of noise has become an important item in the design of building of many types and constant efforts are being made to develop new and better methods of sound insulation.

This Sound Deadening Tile Is a Perforated Metal Frame In Which Insulating Material Is Inserted.

These methods of sound control are all based on the principle of absorption. If you paint a mirror black there will be no reflection of light. In much the same way applying sound absorbing materials to walls, ceilings and floors absorbs the sound and makes the room more quiet. Various materials absorb sound to various degrees. Some absorb as high as 70 per cent of the sound that strikes them.

A device has recently been developed and marketed for attaching high sound absorbing materials to walls and ceilings. As illustrated here, this is a perforated sheet of metal which allows sound to pass through as through a screen. Back of this form there is placed the sound-absorbing material, any of several different types being suitable, the whole piece forming a tile 16 inches square and about one inch thick.

This tile is securely attached to the ceiling by means of special Tee section strips which are attached to the ceiling on 16-inch centers and into which the tiles lock rigidly. The Tees are completely concealed in the finished surface and the surface can be repainted or redecorated indefinitely without reducing the sound-absorbing factor noticeably. It can be taken down and salvaged if desired and removed to another location. It can also be sponged off and kept clean at all times. Either a metal or light wood plaster moulding can be used to finish off the edges and the tile can be obtained with either beveled or plain squared edge.

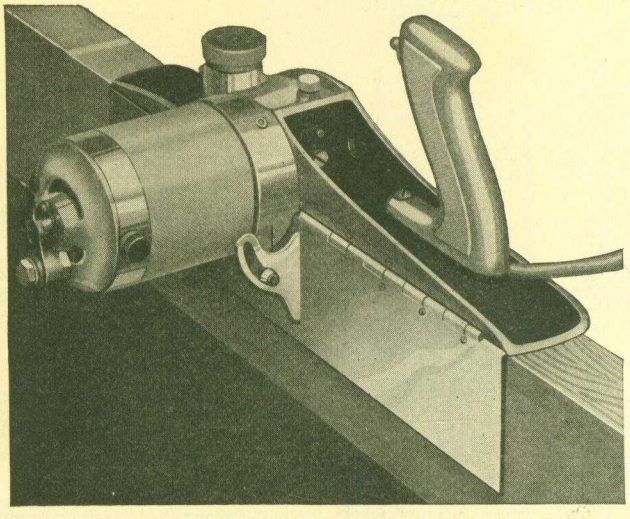
These Tile Are Attached to the Ceiling by Inserting in Metal Tee Stripes Which Lock Them Rigidly in Place.

✣

A New Power Hand Plane

AFTER nearly three years of experimental and development work a company which has for the past eight years been devoted to the production of high grade portable woodworking machines, has perfected a power hand plane that is fast enough to produce cuts on doors, transoms, sash, etc., in fitting to the opening, and sturdy enough to stand the continuous abuse of work of this nature, yet light enough to be termed a truly portable machine in every sense of the word.

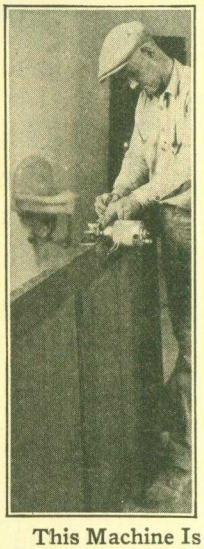
This machine weighs but 9½ pounds and, it is said,



A Power Hand Plane Which Is Both Fast and Sturdy and Can Be Converted Into a Small Jointer by Means of a Bench Bracket.

can be operated easily with one hand, as the switch is right in the handle. The side apron is fully and instantly adjustable for cutting from square edges to 45 degree bevels, with a proper stop provided for the return of the apron to its original square position immediately.

The motor is a specially constructed, universal type, operating on either A.C. or D.C. current and develops full ⅜ H.P. with current from a lamp socket. It has a speed of 18,000 R.P.M., and with a spiral cutter of three teeth 54,000 cutting edges are cutting every minute, insuring smooth work and eliminating the necessity of scraping or sanding.



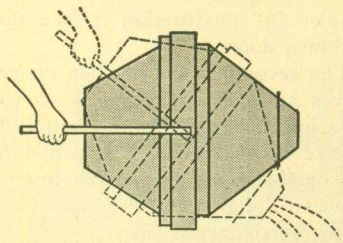
This Machine Is Light Enough That It Can Be Operated With One Hand.

There is also a complete grinding attachment supplied with each machine, that grinds the cutter keeping it like new. This requires but a few moments to do. The machine is fully adjusted to compensate for any wear of the cutter. The dial shown at the front of the machine is direct reading and may be adjusted either while cutting or before starting work.

A bench bracket is also supplied as regular equipment which converts the machine, in a moment, into a speedy little bench jointer. The cutters are full 2 5/16 inches wide, permitting the fitting of all doors, transoms or sash, on any building operation. The saving of time and labor, and hence expense, through the use of this machine is said to be large, and at the same time the hard, tedious work of hand fitting is eliminated.

Extra Batches~Extra Profits

Compare the Quick Tilt of a Smith with the discharge of any other mixer.

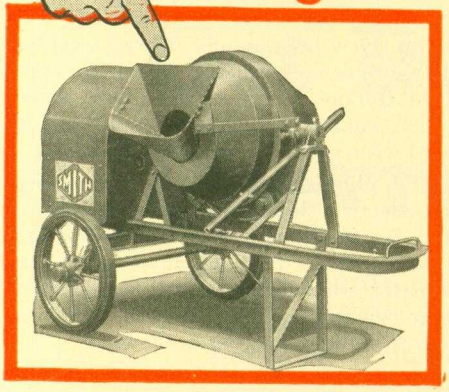


The easy tilt of a Smith drum through a short arc is simple compared to the "winding up" required on other small mixers to discharge. The Smith is the only true "tilter."

The Smith Mascot (2½-S) Mixer —of very best materials throughout. Simple and trouble-free in design and construction—the blades cut through the batch and it is not merely stirred, as in other small mixers.

Get Our Big New 1928 Catalog

Easy to Charge



A Smith Tilting mixer cuts non-productive "between mixing" time to the fewest possible seconds. Those seconds, saved every two minutes, give Smith users more batches a day—*extra* batches that mean *extra* profits.

Better mixing, too. Smith pioneered the tilting mixer back in 1900 and has a fully developed, perfected mixing action that is smooth — and easy on the drum and drive.

Backed by 28 Years' Experience

Only from long experience can a mixer builder incorporate the proper materials and refinements in design that mean long-life and user satisfaction. Smiths of 2½, 3½, 5, 7-S (up to 112-S) capacity have 28 years of use in the field in back of them.

The Only 2½-S Mixer With a Hopper

Materials can be shoveled into the batch hopper on the Smith Mascot faster and easier than into any other mixer of this capacity. A bigger opening—lower down—at a better angle. Less effort required and workmen stay "on the job" in hot weather. Another Smith advantage.

THE T. L. SMITH COMPANY
1026 32nd St., MILWAUKEE, WIS.
Sales Offices and Service Stations in All Principal Cities

THE T. L. SMITH COMPANY
Milwaukee, Wisconsin

Please send me a copy of your Mixer Catalog No. 528
We are especially interested in a ..... mixer.
(Size of mixer)

Name .....
Address .....
City ..... State .....
Date .....

1026

SMITH MIXERS

A Burglar-Proof Door

HERE is illustrated a new door which, by combining units that have for many years been used separately, answers the demand for burglar protection while, at the same time, retaining the highest standards of door construction and beauty. This door is installed with standard jambs and hardware such as used in doors of any of the conventional types. In construction it is a door within a door.

The secondary door, when opened, leaves an opening which is covered by a burglar-proof bronze grill and a bronze inset screen. The grill is on the outside with the screen inserted between the grill and the hinged sash of the secondary door.

Many robberies have been committed in daytime through lack of the protection such a door offers, the story usually being: the door bell rang, the woman of the house inquired through the door or speaking tube what was wanted, the answer was "a package to deliver," "the telephone inspector," "the gas man," or some such excuse, and when the door was opened the intruder thrust himself in, the house was robbed or violence committed.

With the Metal Grill Protection the Danger of Burglars Is Eliminated for the Housewife.

With this door, when the bell rings, only the upper sash is opened and the woman of the house is effectively protected against intrusion or attack by the grill and need open the door itself only when the caller demonstrates beyond doubt that his errand is genuine.

✣

Asphalt Floors and Damp-Proofing

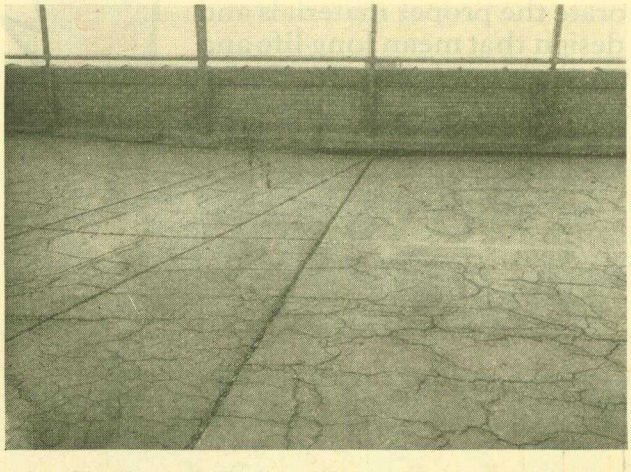
IN spite of the general acceptance of the axiom that "oil and water will not mix," there has been discovered a commercially practical method of suspending asphalt in water which opens up very interesting possibilities in the building industry. The resulting asphalt-water mixture is easily combined with sand and portland cement, forming a resilient mastic for laying water-proof, acid-proof floors, for permanent patching of holes in concrete floors, loading platforms, sidewalks, pavements, etc.

Also, without the addition of mineral aggregates, it is used as a plaster bond, for damp-proofing walls, foundations and as a protective coating against water, moisture, acids, alkali, chemical fumes and electrolysis. The material is easily applied by any careful workman. No heating and no special tools are required. Simple mixing operations and cold application supplant the heating kettles, hot mopping and work formerly done only by experts. The protective coating, without mineral aggregates, is applied by brushing, spraying or troweling.

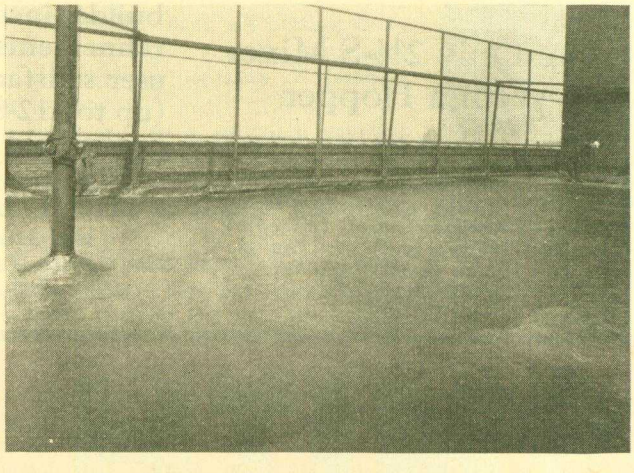
In the production of this material, hot liquid asphalt is broken up into globules in water to which has been added a small amount of colloidal clay. These tiny globules of asphalt are prevented from joining or sticking to each other by a thin film of dirty water. When exposed to the air, however, the minute film of water quickly evaporates and then each globule of asphalt amalgamates with the adjoining globules, forming a coating of solid gummy asphalt, exactly the same as though the asphalt has been melted and applied as a hot coating. The tiny particles of clay are imprisoned in the spaces between the globules of asphalt forming a colloidal mixture which, it is said, scientists have demonstrated adds greatly to the durability of the asphalt coating.

This new material is shipped in metal barrels and half barrels in the form of a heavy, thick paste, which can be used as it is diluted with water to any consistency desired. It can be used over wet surfaces, in fact, better binding is secured when the base is wet or damp. It sets readily and dries within a few hours under normal weather conditions. As it is odorless and tasteless it can be used for waterproofing cold storage rooms, refrigerators, water tanks, etc., and since it contains no volatile, inflammable solvents, it can be used with safety in unventilated spaces.

Being very sticky and adhesive it bonds securely to any solid surface—wood, concrete, brick, tile, plaster, stucco, iron, steel or glass. As it forms the same coating as asphalt applied hot, it is water, acid and fume proof, an excellent electric insulator and remains elastic and ductile under varying weather conditions, and will stand comparatively high temperatures without sagging or flowing.



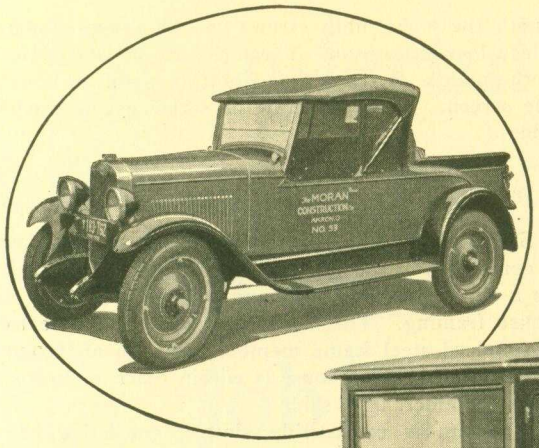
An Old Cracked Cement Roof or Floor Badly in Need of Repairs Can Be Effectively Treated with This Asphalt Mastic.



After the Mastic Is Applied a Permanent Repair Has Been Made as It Will Adhere Perfectly to Any Solid Surface.

for Economical Transportation

CHEVROLET



Roadster with Pickup Body attached

Utility Truck with Stake Body

Get Delivery on a New Chevrolet Truck NOW!

If your requirements call for a speedy, dependable haulage unit—you can get prompt delivery on a Chevrolet Truck. The thirteen great Chevrolet factories are working at capacity; and your Chevrolet dealer can provide you with exactly the body-type to meet your individual requirements.

See him for a trial-load demonstration. Let him explain the advantages of Chevrolet's rugged construction and modern design. Let him show you why Chevrolet provides the world's lowest ton-mile cost in every line of business.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

—at these Low Prices

LIGHT DELIVERY
$375
Chassis only

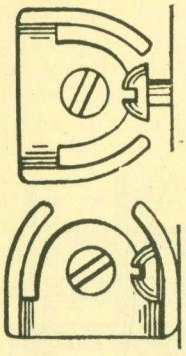
UTILITY TRUCK
$495
Chassis only

Prices f. o. b. Flint, Mich.

QUALITY AT LOW COST

Simple Effective Screen Lock

AN interesting and useful little device, shown in the illustration, has been placed on the market. It is in the nature of a lock for use on window screens, storm sash and the like and is intended to eliminate the necessity for outside installing of these. The device is a single piece of metal having two prongs so that it can hook either right or left as desired. The inside prong, not intercepting in the keeper, serves for a handle to hold the screen and turn the lock into the proper position where it grips from one point, pulls and also draws sideways. It is ornamental and easily installed.



This Simple Little Device Is an Effective and Economical Screen Fastener.

When this device has been installed, screens and storm sash can be taken off on the inside of the windows for cleaning glass and replacing again. It is a safeguard for burglary because it cannot be taken off from the outside until the locks are released. It can be placed on sides or corners where it is difficult if not impossible to install the more familiar locks.

When screens are installed with these locks the outside appearance of the building is not marred by unsightly hangers and the use of ladders, which damage the lawn and shrubbery, is eliminated. To prevent children tampering with the locks, both screws can be drawn down to a clinch in locked position. The locks are placed, preferably, near the middle of the top and bottom sash, on both sides of the screen. Either a screw or screw eye is used for a fastener.

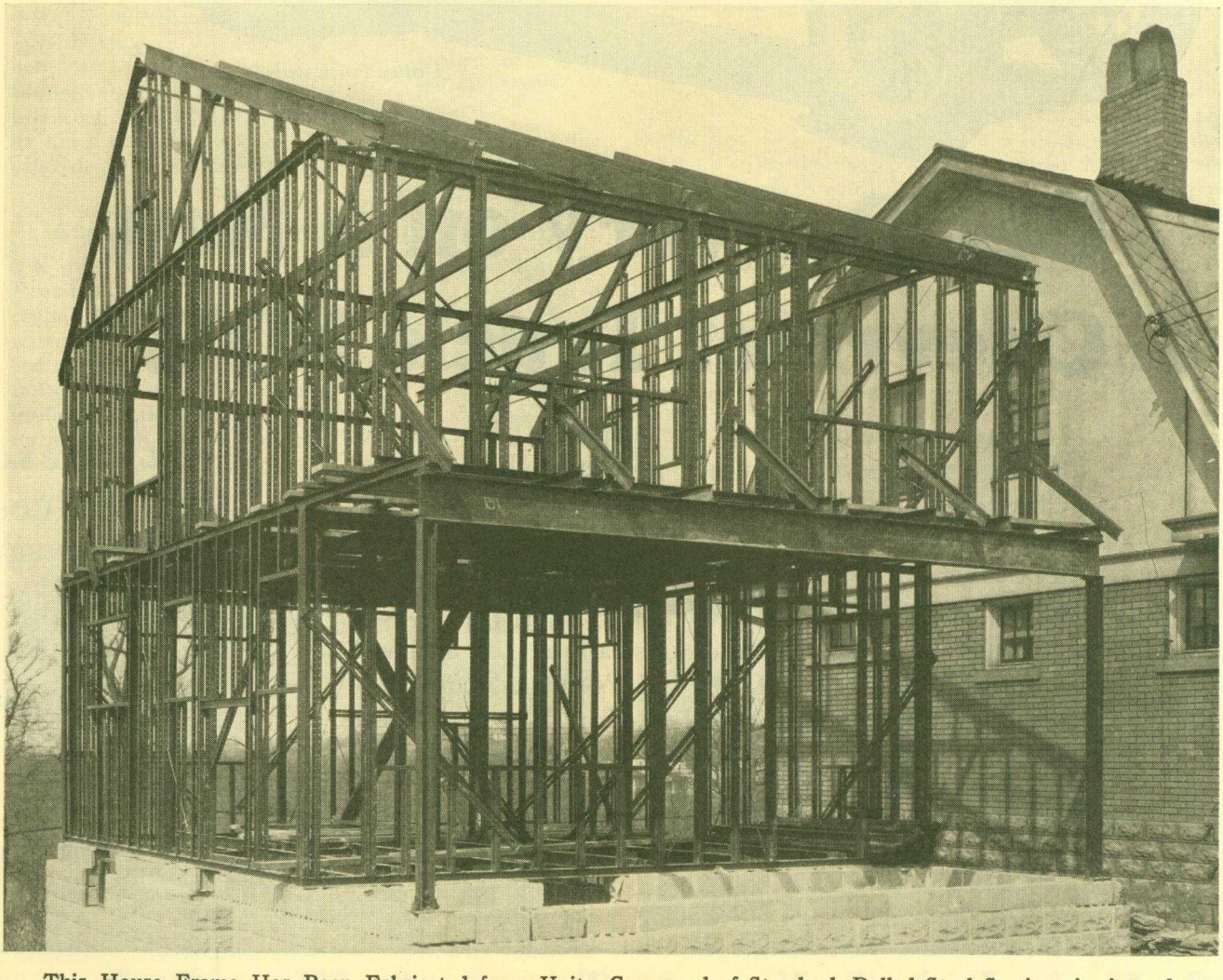
✣

New Steel Framing System

A SUBSIDIARY of one of the largest steel frabricating companies in the world has developed what is claimed to be a thoroughly practical and greatly improved system of house framing. This system makes it possible to produce standard steel frame members at such an economical cost that a steel frame house is within reach of every modern home builder, it is said.

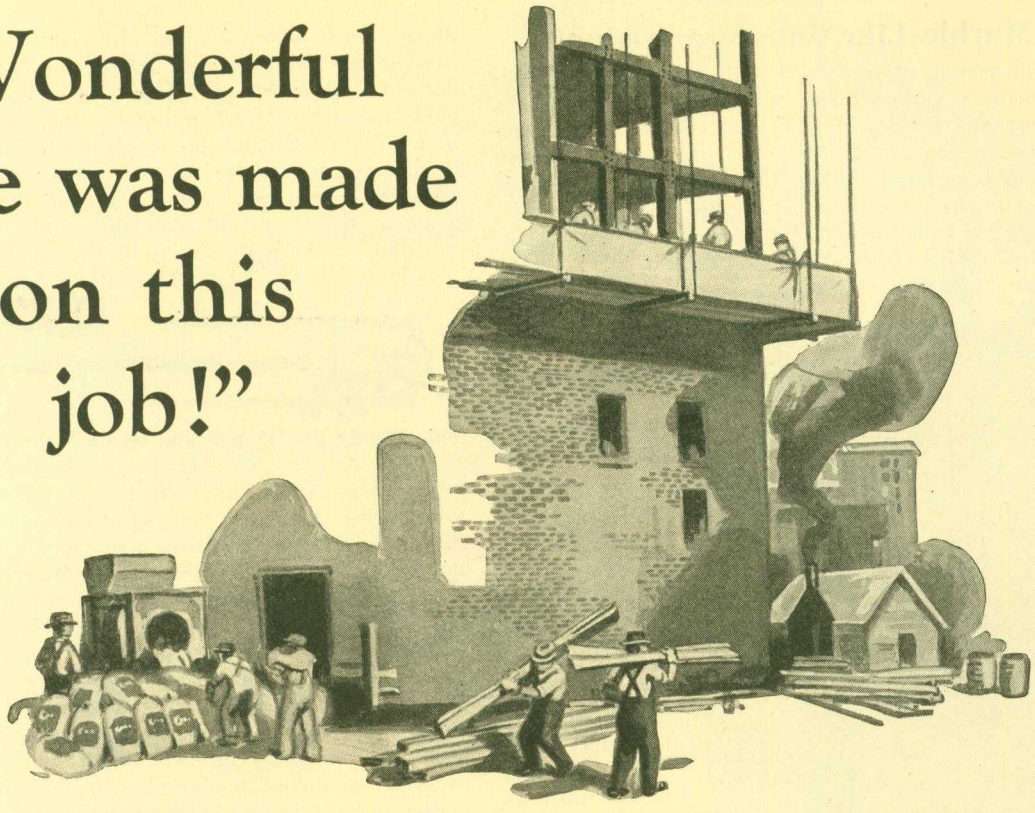
The system is remarkably simple, consisting of units composed of standard rolled steel sections. The method of punching and assembling provides unlimited construction possibilities and also provides an easy means for attaching the building material.

The first cost of this steel framing is slightly higher than wood but the saving in labor and the rapidity with which it can be erected is said to offset the difference in material cost, not to mention the added degree of permanence, rigidity, fire safety and freedom from shrinkage. A catalog describing this new method of house framing entitled "Steel Framing for Dwellings," is available to home builders and contractors. Address requests to the Editor What's New Department.



This House Frame Has Been Fabricated from Units Composed of Standard, Rolled Steel Sections in Accordance with a Newly Perfected System Which, It Is Said, Brings the Total Cost of Construction to a Point Well Within the Reach of All Home Builders.

"Wonderful time was made on this job!"



BRYANT & DETWILER, contractors on the new Harper Hospital, Detroit, sent the "Swinging Scaffold" back 30 days sooner than originally planned.

Wm. Brown, the mason foreman, stated that, "wonderful time was made on this work. At the peak, there were 76 bricklayers, and 2 men mixed all the Carney mortar". This alone represents a sizeable saving.

The masons, too, were well pleased with the butter-like manner in which the Carney mortar worked on the salt-glaze brick—and the joints proved exceptionally tight.

If you want really fine jobs of masonry—at a cost considerably lower than others—put Carney Cement on your list.

THE CARNEY COMPANY

DISTRICT SALES OFFICES

CLEVELAND	CHICAGO	DETROIT	ST. LOUIS	MINNEAPOLIS
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Cement Makers

Since 1883

Specifications:
1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand.

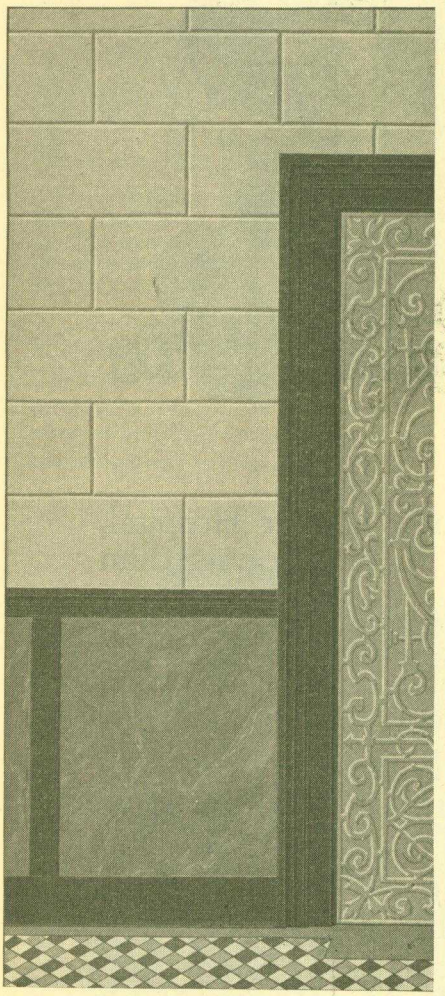
CARNEY CEMENT

for Brick and Tile Mortar

A Marble-Like Concrete Product

THE illustration shows an installation of a building material, made in various forms of mouldings, bases, panels, wainscoting and flooring. Its general appearance is practically the same as marble. It carries the same distinctive coloring and is surfaced with a permanent high polish. It is set in exactly the same way that marble is set. Basically, it is of concrete construction, poured into molds and chemically processed by a special patented formula.

It is stated that impartial tests have shown this material to be 1.75 times as hard as marble and, being a manufactured material, it contains no fissures. Neither marble chip nor dust are used in its manufacture so that there is no possibility of pieces of its surface working loose or fissures gradually wearing into its surface.



While Resembling Marble in Appearance, This Material Is Much Lighter and Is Impermeable.

It is produced in such form as to be practically an exact reproduction of various types of marble. It is nonporous and entirely impenetrable and therefore cannot be affected by moisture. Even ultra-violet rays do not affect its color. It can be used anywhere that marble is used and makes a rich, permanent installation of moulding or trim.

In addition to its strength and beauty it is also more economical than marble. It is less expensive in first cost and, being lighter in weight, saves in the foundations, footings and steel structure. It is, to be exact, 22½ per cent lighter than marble. On account of its uniform consistency it will not crack, flake or chip. It is designed and manufactured in every form to meet every requirement of construction and setting.

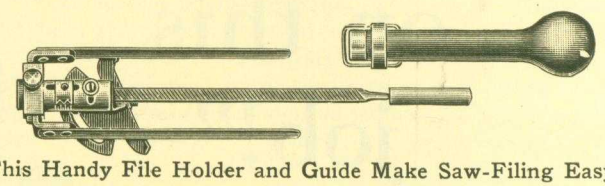
The manufacturers of this material maintain a service department to co-operate with architects and builders. They offer to make a survey and quote prices on any type of building, plans of which are submitted to them, and return the plans within 36 hours, furnishing, at the same time, detailed cost of installing.

✣

Device for Perfect Saw Filing

TO obtain a fine cutting saw it is necessary that it be filed with the proper combination of angles and the work be accurately performed. This is very difficult to accomplish free hand, but with the saw filer shown in the illustration it becomes an easy matter.

Some woodworkers are puzzled as to why their saws do not cut satisfactorily although filed at the same bevel and pitch as a fellow worker files his and obtains perfect cutting. The reason for this is not so difficult to understand if you stop to analyze it. The owner of the satisfactory saw files at the right degree of incline, quite often without being aware of it, and maintains it throughout the saw. Naturally a fine working saw is the result.



This Handy File Holder and Guide Make Saw-Filing Easy.

The owner of the unsatisfactory saw files at exactly the same bevel and pitch, but with no regard whatever for the inclined. He files anywhere from a horizontal position to a 35 degree incline and with all the variations between the two extremes. The consequence is a great multiplicity of different shaped teeth. No one could expect such a saw to cut efficiently.

This is not the only reason why a saw does not cut but it is the principal one, at least that is the case where the bevel and pitch can't get away from you. If the three positions, that is, the bevel, pitch and incline, are not properly combined the result will be unsatisfactory no matter if the filing is done with great accuracy. There is a great deal said about nice uniform teeth, but uniform teeth mean nothing unless they are of the proper shape.

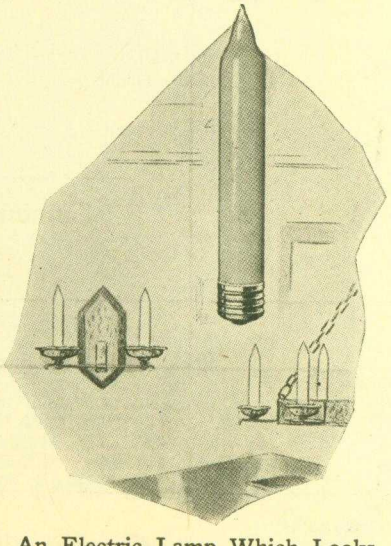
The perfect results obtained with this filer are due to the fact that all three positions, the bevel, pitch and incline, are assured and in addition to this the depth is also assured.

✣

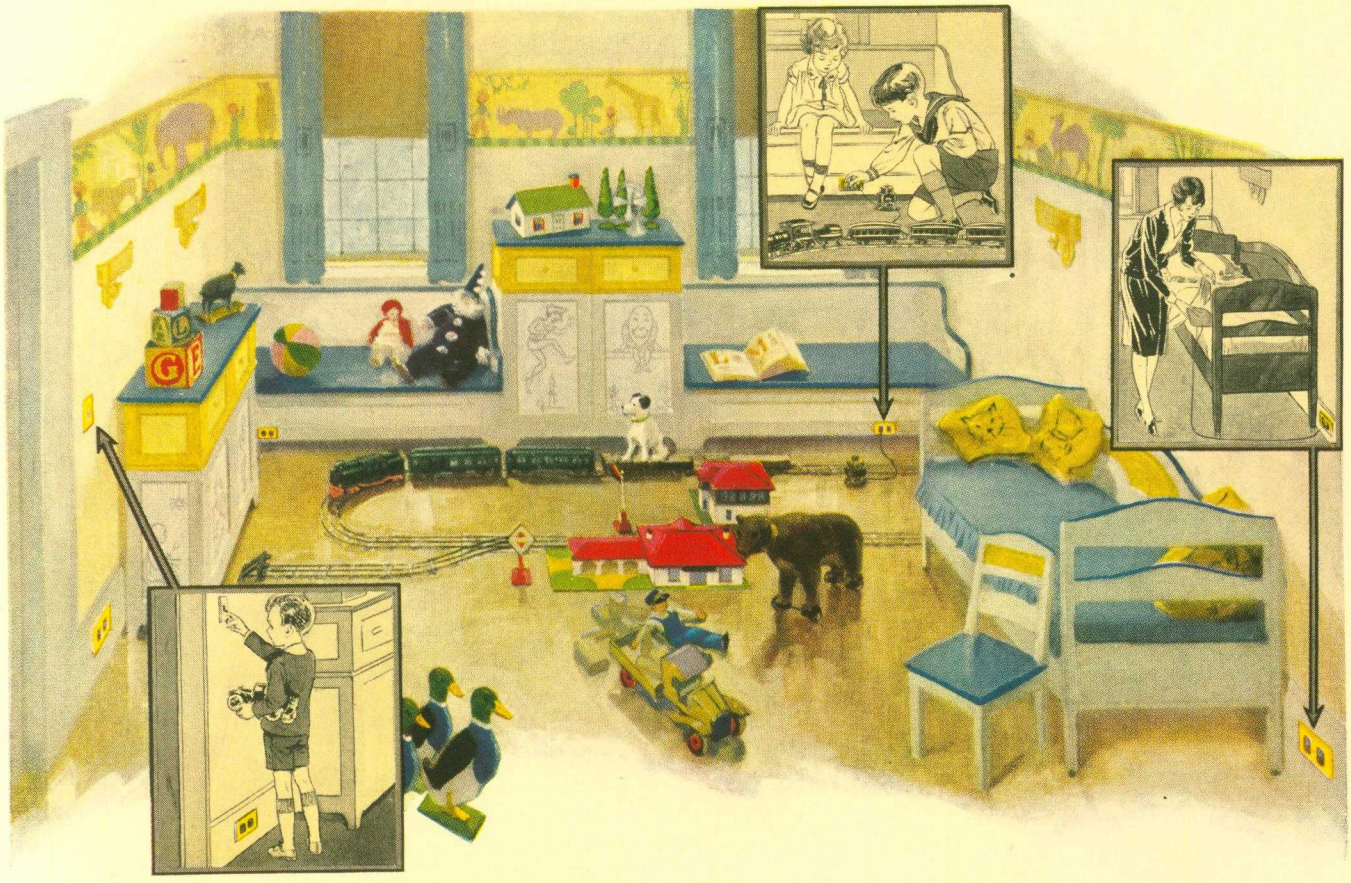
Candle-Like Electric Lamps

IN response to a demand for candle-like illumination, one manufacturer has brought out the new type of electric lamp shown in the accompanying illustration. When cold, the lamp is said to be a perfect replica of a hand-dipped candle. It lights throughout its entire length with an even light, its filament not being visible, giving an illusion of soft, mellow, candle-like light.

The lamp is made in four sizes, a 6-inch size for commercial use, side wall brackets and center ceiling chandeliers; an 8-inch size for portable fixtures, lamps, electric candle sticks, etc.; a 10-inch size for decorative lighting of public places, theaters, churches, etc., and what is known as a plus 10-inch size. The plus 10-inch lamps are of the heavy, massive type for candle stands, torches and similar fixtures. These lamps are made in 10, 25 and 40 watt rating and in all the popular shades. The manufacturers maintain a service department for the purpose of assisting manufacturers interested in designing fixtures for these lamps.

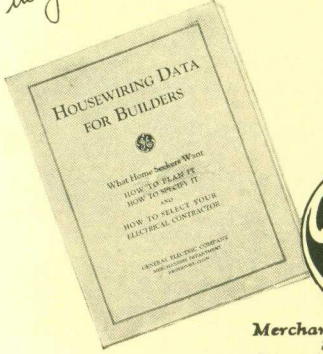


An Electric Lamp Which Looks Like a Candle When Not Lighted and Gives Light with the Quality of Candle Light.



This *advertised* wiring gives your house the comfort that makes it *sell*

Write for this helpful booklet you should have it in your files



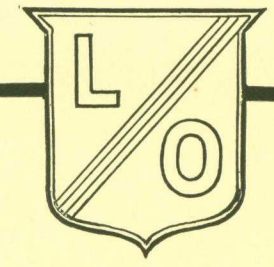
You have undoubtedly found that home-buyers today look for complete and adequate wiring. Continuous advertising of the General Electric Wiring System has fostered and strengthened this demand.

Furthermore, they are looking for an assurance of flawless materials and perfect electrical service. It will pay you to be able to say "This house is equipped with a General Electric Wiring System!"

GE WIRING SYSTEM
—for lifetime service

Merchandise Department
Section 35
General Electric Company
Bridgeport, Connecticut

GENERAL ELECTRIC



Give Your Clients the Best

Specify

Libbey-Owens

FLAT-DRAWN CLEAR SHEET GLASS FOR WINDOWS

A GLASS made by an exclusive process — absolutely without bow — uniform in thickness and strength—with a fire finish of high lustre—which can be cut, handled and glazed with a minimum of breakage—and which can be glazed either side out because it is truly flat—that is what LIBBEY-OWENS offers in its flat-drawn clear sheet glass for windows.

Because of these superiorities, architects and builders everywhere are specifying LIBBEY-OWENS "A" quality glass, and in doing so are rendering their clients a real service.

LIBBEY-OWENS "A" quality glass is twice inspected and twice graded to insure its measuring up to our exacting standards. To protect its brilliant lustre, it is packed with water-marked paper between the lights, and to identify this superior glass, each individual light bears the manufacturer's label.

Specify this nationally advertised glass for all fine windows—and provide your clients with clearer vision and more beautiful windows.

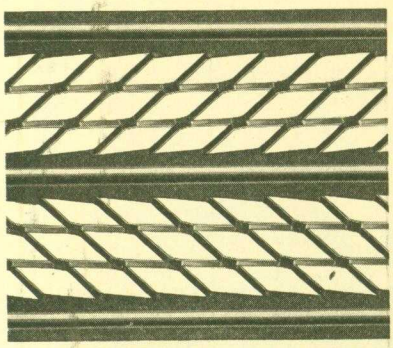
THE LIBBEY-OWENS SHEET GLASS COMPANY
TOLEDO, OHIO

LIBBEY-OWENS FLAT-DRAWN CLEAR SHEET GLASS FOR WINDOWS
Distributed Through Representative Glass Jobbers and Used by Sash and Door Manufacturers Everywhere

An Economical Metal Lath

A NEW steel plastering base has been developed and placed on the market for the purpose of meeting the demand for a steel plastering base sufficiently economical to permit its use in moderate priced homes and other construction where the price of the old types of metal lath does not permit its use. In appearance it resembles the well-known metal lath made by this company for years and combines the valuable qualities of both diamond mesh and ribbed laths.

The engineers have, however, incorporated certain distinctive qualities in this new product that make it so economical as to compare favorably with plaster board and wood lath. The sheets are 24 inches wide and 96 inches long. Three rows of open mesh connect the heavy, cold-drawn, ⅛ inch flat ribs which are placed 1½ inches on center ribs and mesh being formed from a single piece of sheet steel. The rigidity imparted by the stiffening ribs is increased by their wide flange, which also contributes to the mortar saving qualities of the lath, it is stated.



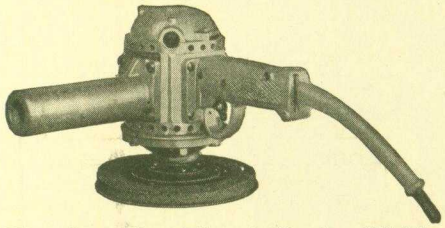
A New Metal Lath Designed to Meet the Demand for an Economical Steel Plaster Base.

The lath can be furnished cut either from standard open hearth or copper bearing sheet. It is painted, bundled and shipped uncrated. The weight per square yard is three pounds and it is packed nine sheets to a bundle, weight 48 pounds. The manufacturers state that plasterers say it does not give under the trowel and that it has a stiff smooth surface so that the plaster goes on "like butter on bread." The stiffening ribs act as furring and lend strength to the entire construction, tending to assure fine, firm, non-cracking, non-streaking reinforced plaster.

✣

A New Electric Sander

ALL of the tedious and tiring labor formerly performed with abrasive paper and elbow grease, for smoothing surfaces, can now be done more efficiently and rapidly with the new electric sander illustrated here, it is stated. The sand pad is electrically driven by a powerful motor through a train of steel gears, heat treated, and running in a grease-tight compartment. The motor and all revolving shafts are mounted on ball bearings. The sander is operated with a pistol grip and trigger switch and it has a wide range of applications. It is made for all voltages.



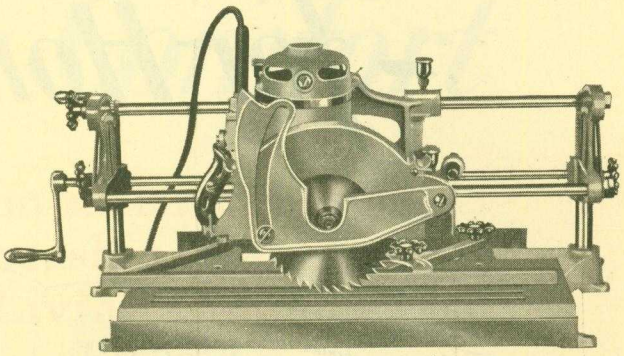
Here Is a New Electric Sander Which Will Be Found a Real Labor Saver.

✣

A Portable or Stationary Saw

HERE is a new woodworker which is adapted to either stationary or portable use, making it unnecessary for the builder to buy both a portable and a stationary saw. It is powered with a ½-h.p. electric motor, either A. C. or D. C., and plugs into any light socket, being supplied with a 10-foot cord and plug. It has hardened gears, accurately machined, incased and running in grease. All moving parts are on ball bearings.

The frame or bench is of steel and aluminum for lightness and strength, with shoulders so that it can be screwed to a bench. It allows cross-cutting of lumber up to 12 inches in width. The ripping gauge can be adjusted to rip strips from ¼ inch wide to 7 inches wide. In cross-cutting the saw is pushed back and forth on the rods while in ripping it is locked in place.



This New Machine Can Be Used as Either a Bench Saw or as a Portable Saw as May Be Required.

Depth adjustments are easily made by a crank and when the proper depth is reached the machine is locked at this depth. Cuts can be made from ⅛ inch to 2½ inches deep. With a larger saw, which can be supplied if desired, it will cut to 3½ inches deep. The saw can be swung from vertical to any angle up to 45 degrees for mitering and a scale on the bevel shoulder makes it possible to set the saw for any angle desired where it can be locked for continuous use.

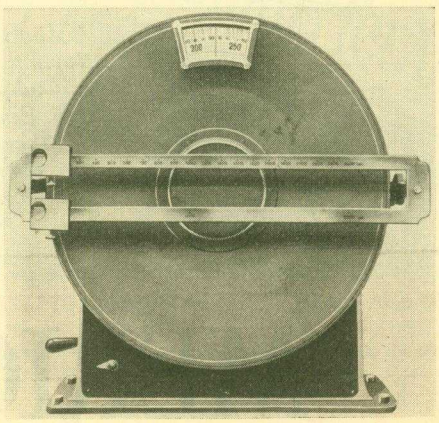
Just two nuts unfasten the saw from the frame and it then becomes a portable electric hand saw weighing but 27 pounds, with the saw blade encased in a guard and the saw operated by means of a trigger switch set into the handle. One nut removes the saw blade for sharpening and various attachments may be inserted adapting the machine to drilling, disc sanding, grinding, dadoing and cutting of light metals.

✣

More Accurate Power Dial Scales

THIS new type of power dial scale, which is said to mark a distinct improvement in such instruments, has recently been placed on the market. This new scale incorporates the principle of a chemists' laboratory scale, long known for its extreme accuracy, with an electrically operated poise shift which automatically strikes a perfect balance. An accuracy within 1/70 of one per cent is said to be obtained.

The fact that the load on the platform does not do the work of turning the mechanism as in the ordinary type of scale is given as one of the reasons for its great accuracy. This scale is adapted to any type of heavy duty beam scale and makes it possible to weigh up to 200 loads per hour.



With This Power Dial Scale an Accuracy Within One-seventieth of One Per Cent Is Obtained.

A Springtime Message – for Home, Happiness

Above is reproduced copy of our Springtime Message to Home-Buyers, which will appear in the Saturday Evening Post, May 19th, and in other leading publications, reaching over 30,000,000 people during the month of May.

AMERICAN RADIATOR

to 30,000,000 People and Heating Comfort

Another step in our million dollar campaign to increase Home-Ownership and raise America's standards of Living Comfort—

ON the opposite page is our first 1928 Springtime Message to home-buyers. This is another step in our national program to help raise America's standard of living comfort by encouraging more and better homes.

This advertisement will appear in the Saturday Evening Post of May 19th and in other publications, reaching more than 30,000,000 people during the month of May.

It is one of the most important announcements we have ever made, because it will reach hundreds of thousands of home-buyers just at the time they are considering a new home. And it will have a tremendous influence in stimulating interest in home buying.

Making America Home Conscious!

It is the attitude of millions of families towards their homes that makes a market for more and better homes. Contented and healthy families with modern home comforts are the enthusiastic boosters who influence other families to become home owners.

Until America is made home conscious and more families are encouraged to build and buy better homes, families will continue to spend more money on luxuries than on necessities for their homes. This is our common problem and we are following in the footsteps of the builder to do our part in encouraging home ownership and raising the standards of living comfort through this million dollar educational campaign.

The message is a real service to the public. It safeguards the home comfort and health of the nation; it promotes better homes and therefore, more homes; it means, consequently, *greater* sales—and *easier* sales—for builders who can show their clients these products in the houses they construct.

Mail the Coupon for Detailed Information

COMPANY

AMERICAN RADIATOR COMPANY, Amer. Bldr. 5-28
40 West 40th Street, New York City

I would like to receive detailed information on how to tie up most effectively with your national campaign for better homes.

Name.....

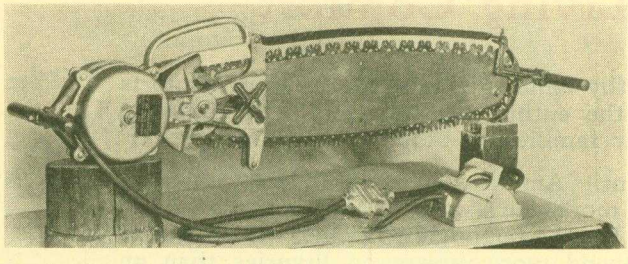
Address.....

City....., State.....

Portable Power Saw for Heavy Timbers

THIS portable, link sawing machine is especially designed for the cutting of heavy timber in which work it has been proved highly time and labor-saving, doing the work of a hand cross cut saw at least five to 10 times as rapidly, it is stated. It is available in either air, D.C. or A.C. motor drive, to meet the requirements imposed by varying working conditions.

The A.C. type was first placed on the market and its successful operation and the demand for the service of this equipment where A.C. current was not available led to the development of the D.C. and air types. The A.C. type is equipped with a motor especially designed for this service and is dustproof and waterproof to a depth of two feet. It operates on either 100 or 220 volts, 60 cycle, 3 phase, alternating current and has a capacity of 24-inch diameter timber. It weighs approximately 90 pounds.



For Sawing Timbers This Power Saw, Which Can Be Used Under Water, Is a Time and Labor Saver.

The D.C. type also has a specially designed motor operating on 110 or 230 volts direct current and weighs about 100 pounds. Otherwise its specifications are practically the same as those of the A.C. type. The air motor type has a special motor designed to operate from a 5 by 5½ compressor of well known make or machine of equal capacity, maintaining a tank pressure of not less than 80 pounds. Its capacity is, also, 24-inch timber and its weight about 95 pounds. It will operate successfully 24 feet under water.

These machines have frames of four pieces of special saw steel, heat treated and riveted together with a slot around the edge providing a track for the saw links to travel. The frame is held rigidly in position and an eccentric sprocket shaft provides adjustment for the tension on the chain. The links are made of high grade steel, electrically heat treated and are easily replaced. A foot control switch housed in an aluminum and copper casting controls the A.C. type while the control for the D.C. and air types is mounted on the motor end of the saw. The upper section of the saw teeth has a guard which passes through the cut with the saw. The strength of the chain, in relation to the pull of the motor, gives a very liberal safety factor, while a sheer pin on the sprocket shaft protects the machine from sudden shocks or strains.

This saw will be found particularly valuable on mill construction and on all building which involves much sawing of heavy timber or trimming piles.

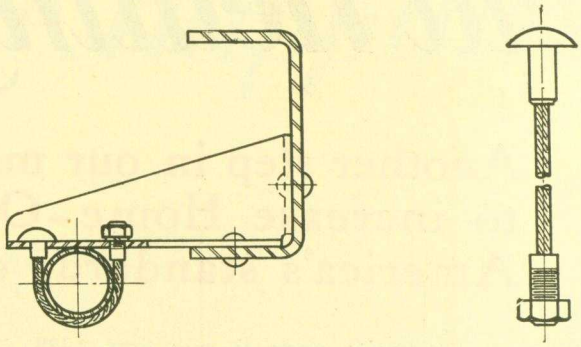
✣

Flexible Wire Rope Bolts

THROUGH the development of the preformed type of wire rope, which makes possible the attachment of fittings by the processing method that compels the fitting to become an integral part of the rope, there has recently been perfected and placed on the market the flexible bolt shown in the accompanying illustration.

These new bolts may be used in countless places in and around the mill or plant or in any place where rigid "U" bolts are impractical. They are used as auxiliary hangers for power shafts suspension brackets for overhead steam or water piping, shackle bolts for temporary wall boxes and tanks, for scaffolding and tackle, on various parts of machinery and other places where semi-flexible connections are necessary.

The principle on which the new flexible bolt rests is the preformed type of wire rope. Preforming the wires and strands to the exact helical shape they must assume in the completed rope results in a cable that does not require seizing but may be cut like a rod. This type of rope permits a close fitting attachment to be slipped over the unseized end of the rope and to be processed so that the steel of the fitting cold flows into the interstices of the rope and thus becomes practically an integral part of it. Naturally such fittings can be threaded for a nut or capped for a head. The flexible bolt which has resulted from these developments is available in varying lengths.



Flexible, Wire Rope Bolts, Most Convenient for Many Kinds of Connections, Have Been Made Possible by the Development of Preformed Wire Rope.

✣

Quick Acting Fire Station Doors

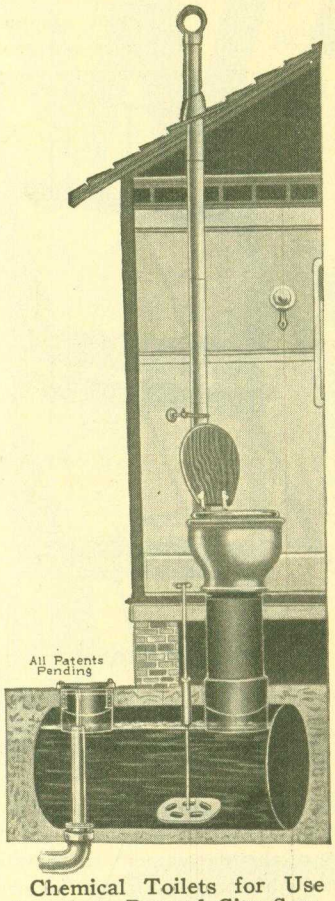
A NEW type of quick acting door was recently installed by the fire department of Hempstead, L. I., in its fire station, and has attracted considerable attention from architects and fire chiefs who have seen it in operation. This door operates in two units of two doors each, an electric motor providing the power. The entire opening is cleared in less than five seconds and the operation is noiseless and free from jar when the doors swing to the full open position.

The operation is in response to a switch thrown by the man in charge of the station, upon receipt of an alarm. The doors are opened full before the driving motor on the fire engine can be started. The Hempstead doors, shown in the accompanying illustration, are painted cream color with black trim and present a pleasing appearance in addition to their practical utility.

These Doors Are of a Quick Acting Type Which Has Been Found Particularly Suitable for Fire Stations.

Better Chemical Toilets

FOR homes and other buildings beyond the service of city sewage systems, an improved service, described by the manufacturers as being far in advance of anything previously offered, has been brought out. This model incorporates two important features which recommend it to health authorities, architects and owners and all others interested in building equipment. It is designed for use wherever water supply is inadequate for a plumbing system or where special care is desirable to safeguard the water supply.



Chemical Toilets for Use Anywhere Beyond City Sewage Service Have Been Greatly Improved.

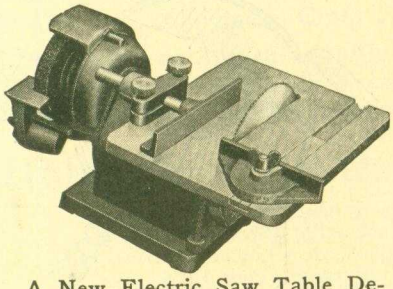
This system is easy to install, requires a minimum of care and small upkeep expense, assures an absence of odors and trouble-proof service. The drop-tube, agitator and manhole collar all extend below the liquid line, thus providing a seal against odors more effective than any system of ventilation. Ninety per cent of the sewage area and consequently 90 per cent of the odors are eliminated at the source. This feature is made possible by the stationary level maintained in the self-drain type of tank.

The system normally operates as a self-drain system requiring no attention except a monthly supply of chemical. The sewage is retained until liquefied and sterilized, then discharges automatically into the filter pool. This improved type also allows the tank to be entirely emptied through a drain outlet at the end of the season or as frequently as desired.

The system includes one, best grade, vitreous china bowl with oak finished, non-split seat; 12-foot ventilation (10 feet in white enamel and 2 feet galvanized) roof flange and vent cap; one storage tank of heavy galvanized iron with simple efficient mixer; full charge of chemical; toilet paper and holder; putty and roof cement. It is supplied in various sizes to meet varying requirements.

✣

A New Electric Saw Table



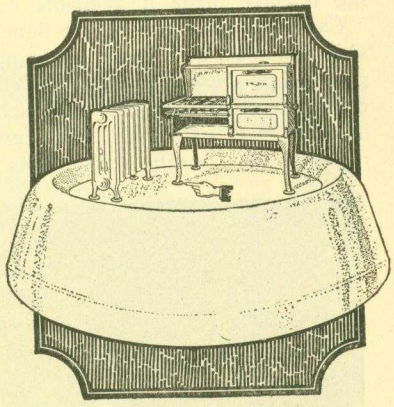
A New Electric Saw Table Designed To Be Used with This Company's Combination Grinder.

THE new electric saw table illustrated here has been devised to materially extend the scope and usefulness of the electric combination grinder manufactured by this company. This handy saw table can be quickly mounted on the grinder. Work can be sawed accurately on any angle up to 45 degrees. The table can be raised or lowered to fit all requirements. Wood can be sawed up to 1¾-inch thickness and machine will also saw aluminum, brass, copper, bakelite, fiber and similar materials with surprising rapidity, it is stated. The saw table is sold separately or in combination with the grinder.

✣

Colored Porcelain Leg Rests

LEG rests for use with stoves, kitchen cabinets, refrigerators, radio cabinets—as insulators, radiators and furniture, are being manufactured of porcelain which is said to be stronger than glass. At the same time they offer an opportunity for variations in color to harmonize with room decoration and add to the attractiveness of the room. The colors available are white, black, green, gray, blue and brown. There are two styles, with curved and straight sides, and both styles may be had in all these colors.



These Leg Rests Are of Porcelain in a Variety of Colors and Serve to Protect Fine Flooring.

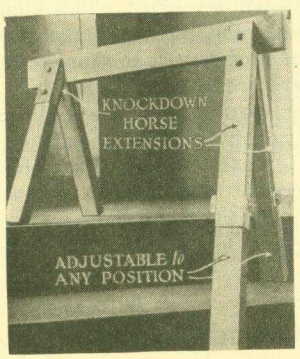
✣

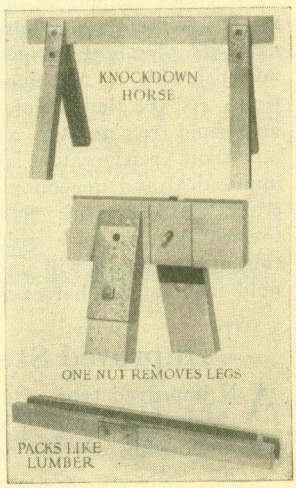
Adjustable Knockdown Horses

HORSES are very handy when they are needed, but they are always in the way when not in use. Every job uses various heights of horses. Carpenters, plasterers, decorators and other workmen carry with them several sets to suit their needs and, in many cases, when done with them, they have to be left behind for want of room to carry or store them. This difficulty is entirely overcome by the use of the knockdown horses pictured here.

These horses are adjustable to any ceiling height, reducing the number of horses required on any job. They can be adjusted to a fraction of an inch. On stairways, landings or uneven floors they always stand rigid and eliminate all danger of falling. When the work is completed they can be taken down in a few moments and a half dozen of them take up less room than one of the ordinary type.

The design of the hardware makes possible a light, strong, neat horse. The plates are stamped of 16-gauge, galvanized iron and shaped to hold the legs rigid in perfect position, making it entirely safe for the workmen. The extensions are made of 20-gauge galvanized iron to receive the legs. By loosening the wing nut, a leg can be raised or lowered to suit the conditions.



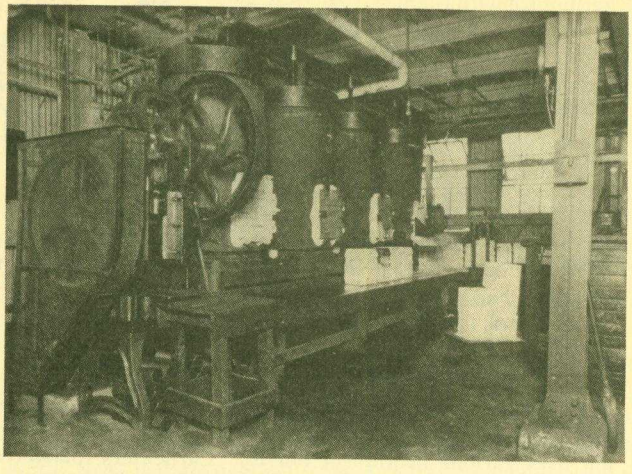


These Adjustable Horses Will Be Found Economical, Convenient, Compact, and Safe.

New Dry Refrigeration

A NEW refrigerant has been placed on the market which gives promise of bringing about radical changes in refrigerator installations, both commercial and household. This new refrigerant is solid carbon dioxide, a solid form of the harmless and odorless gas which is used to charge all carbonated beverages. The properties of solid carbon dioxide have been known for many years, but it is only recently that simple and economical methods of manufacturing it have made it available commercially.

Carbon dioxide gas can be liquefied under sufficient pressure and may then be frozen, converting it to a substance resembling snow. It is then compressed into cakes of convenient size, 10 by 10 by 10 inches, and weighing approximately 40 pounds each. The temperature of this solid is rated by the Bureau of Standards at 114.5 degrees Fahrenheit below zero. It melts to a gas, heavier than air, and without any moisture. The rate of melting when uninsulated is about the same as for water ice, but when insulated its melting rate is remarkably low.



A New Type of Refrigerant Is Being Produced Here, Frozen Carbon Dioxide in Solid Form, Which Has a Temperature of 114.5° Below Zero and on Melting Leaves no Moisture.

The blocks of refrigerant are packed and shipped in or delivered in boxes made of balsa wood, which is lighter than cork board, insulates as effectively and requires no metal lining. It is kept in a balsa wood storage box specially designed for the purpose.

This material is already being used extensively in the shipment of perishables and, with it as a refrigerant, ice cream is being successfully shipped from New York to Havana, Cuba, and delivered in perfect condition. In the approved storage box a 40-pound piece of refrigerant will last from one to two weeks.

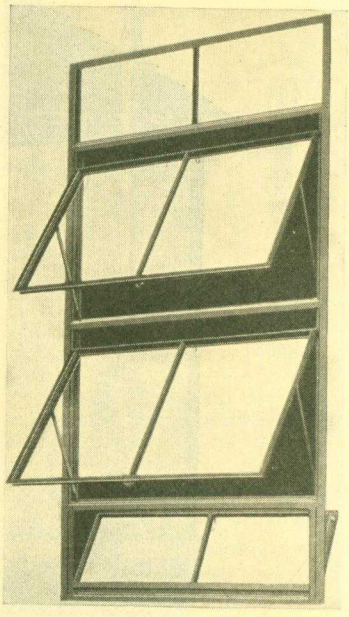
Ice cream dispensing cabinets for utilizing this refrigerant at soda fountains have already been developed. This eliminates all plumbing connections, drains, etc., and there are no repair bills, no machinery and no moisture to cause corrosion. As yet the manufacturers are not ready to place a household refrigerator on the market and the ordinary household refrigerator is so constructed as to make it impractical and uneconomical for use with the new refrigerant. Much work has already been done, however, toward developing a suitable household refrigerator and this new material will undoubtedly be available for household installations before long.

✣

Improved Steel Office Windows

AN improved type of office window, manufactured from heavy, solid rolled, steel, casement window sections, and embodying several new features of design, is being offered. Among the unusual features of this window the following are listed; internal, double baffle designed to secure a generous overlay and effective weathering contact equal to the best casement types; outside glazing, producing a casement finish inside, without the necessity of glazing beads; a sliding-projecting movement of ventilators, insuring uniform ease of operation with vent stopped at any given angle of opening; open-in ventilators at the sill to supply ventilation, while protecting the interior from weather, and upper ventilators that may be tilted beyond the horizontal to provide an easy means of cleaning all glass from the inside of the building.

The hardware for these windows is of light, coinage bronze. The upper vent has a bronze pole ring at the top and a bronze cam action handle on the bottom rail. The lower, open-in vent, is equipped with a bronze latch.



These Office Windows, of Heavy, Solid Rolled Steel, Embody a Number of Improved Features.

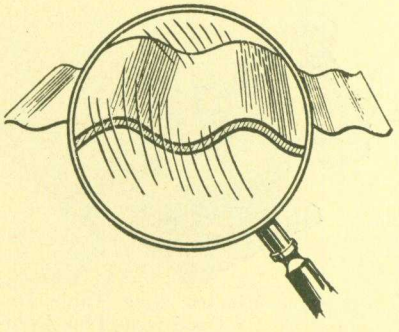
In connection with the marketing of this window the manufacturers maintain an Architectural Service Department, composed of architects specially trained to assist in the proper designing of the windows of large buildings. Members of this department co-operate with architects working from the headquarters at the factory or, when necessary, in the architects' own drafting room.

✣

Lead Coated Sheet Steel Roofing

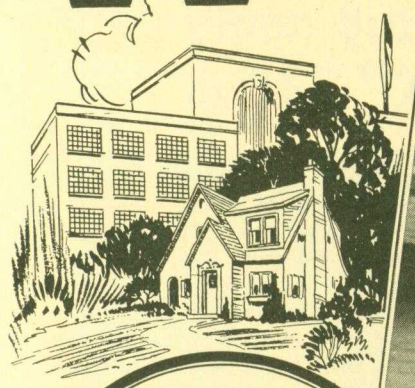
IN many buildings where a sheet metal roof would otherwise have been most desirable it has been necessary to use concrete, slate, tile or composition materials because of the deteriorating effect of acid fumes or salt air on sheet steel. There is now, however, a type of sheet metal roofing which eliminates this objection and makes sheet metal available for roofing and siding under all conditions. This material is a copper content, sheet steel, coated on both sides with pure lead, presenting a smooth, uniform, impermeable surface without break or flaw.

The lead surface of these sheets is unusually thick, soft, level and easy to work. The sheets are produced in standard sizes of corrugated roofing and siding and other roofings and flat sheets in numbers 12 to 28 gauge. The process of manufacture assures against flaking or peeling of the lead surface. The material presents a most desirable combination of roofing qualities at a moderate cost with long and dependable service assured.



Sheet Steel Roofing and Siding, Coated with Pure Lead, Is Absolutely Impervious to Acid Fumes and Salt Air.

WANTED
FRANCHISE AGENTS



A Golden Opportunity

START YOUR OWN BUSINESS

SELLING AND APPLYING

MALLEABLE ASPHALT (MASTIC)
FLOORS and ROOFS

Easily Applied—No Heat—No Special Tools

AN unusual Mastic Composition that is different from other similar products in ingredients, method of manufacture and in results.

This material has been successfully used in such buildings as Marshall Field (retail store), Field Museum, Butler Bros., warehouse, Crane Co., foundry, etc.

We appoint one Franchise Agent in each town and our specialty salesmen help our Franchise Agent sell. No large investment in stock required. An ideal line for Contractors and Building Material Men. Two-way Profits—one on the material—one on the installation. Our Maco (Colloidal) asphalt, a composition easily mixed with Portland Cement and sand for building Malleable Asphalt (*Mastic*) Floors, and for permanent patching and repairing old concrete floors, loading platforms, sidewalks, driveways, etc.

A wonderful money maker that fits in with the Malleable Asphalt (Mastic) Roofing and Flooring. Nearly every building in your town is a prospect.

HERE IS A REAL OPPORTUNITY

We want responsible men to act as our Franchise Agents. Send in the coupon today for FREE samples, outline of advertising we do for you, helps we offer and full information. Write today, your territory won't be open long.

MALLEABLE ASPHALT CO.

6355 Broadway **CHICAGO, ILLINOIS**

MALLEABLE ASPHALT CO.
6355 Broadway, Chicago, Ill.

Please send me free samples, and complete information. I am interested in your Franchise Plan.

Name.....

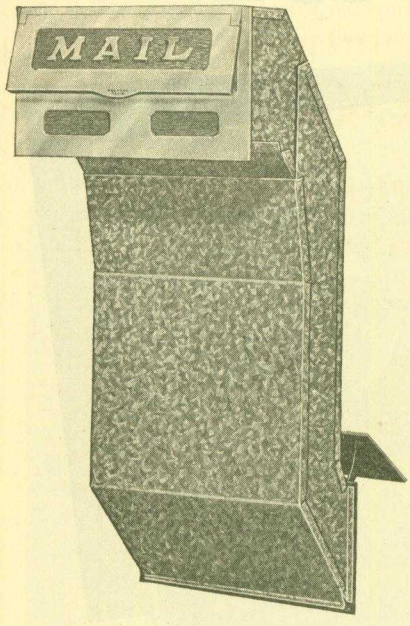
Address.....

Town.....*State*.....

Contractor ☐ Building Material Dealer ☐

Built-in Mail Boxes Improved

A NUMBER of improvements have been made in a well-known line of built-in mail boxes and chutes. These boxes, as illustrated here, are now made with a front which exactly fits into the courses of a brick wall without any cutting of the brick. Also they are now made with a new and handsome, hand-hammered, Swedish gray iron finish which is furnished when desired on the fronts of all boxes made by this company.



One of a Line of Built-In Mail Boxes Which Has Recently Been Much Improved.

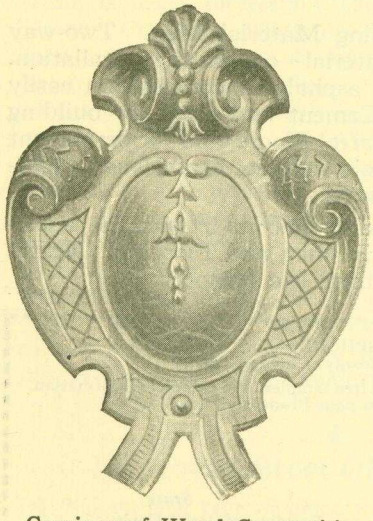
There is also a new side wall box added to the line which is especially adapted to duplexes and flats where an extension is necessary to deliver the mail through a cross wall.

These boxes are made for both frame and brick construction, the former adjustable to wall thicknesses of 6 to 9½ inches and the latter adjustable for wall thicknesses of 9½ to 14 inches. They can be had with the door bell incorporated in the mail box front if desired and either with or without a place for inserting the name of the owner. They have a depth sufficient to prevent any danger of the pilfering of mail and the inner door is so hinged that the weight of excessive mail will open it, eliminating any possibility of the box becoming stuffed or clogged.

✣

Composition Wood Carvings

AN interesting line of wood carvings is illustrated here. These carvings have been on the market for many years and have been proven by the test of time to be a highly satisfactory and economical product for the use of builders, cabinet makers and furniture manufacturers. They are a wood composition which is practically unbreakable and does not chip or crack. They can be shipped safely anywhere, without damage and can even be struck with a hammer without damage.



Carvings of Wood Composition Are Economical, Unbreakable and Highly Satisfactory.

These carvings are carried in stock ready for immediate shipment, as they do not deteriorate with age, and are available in various woods, oak, mahogany, walnut, gum and birch. They have excellent detail and depth of grain and are as sharp as high grade hand carvings. They are, however, much less expensive than hand carvings, and so make possible greater economy and profit to the user.

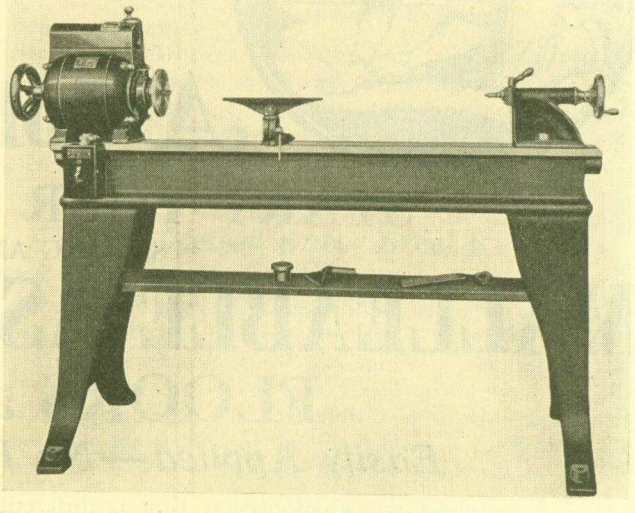
✣

A Lathe in Three Sizes

THIS new, union, motor in head, speed lathe has recently been placed on the market by a leading manufacturer of machinery. It is built in three sizes. The multi-speed, ball bearing motor, of ½ H.P. provides for spindle speeds of 570 R.P.M., 1,140 R.P.M., 1,725 R. P. M. and 3,450 R.P.M., can be supplied for either two or three phase, 50 or 60 cycle.

The beds furnished with the three sizes of lathe are four feet two inches, five feet four inches and six feet four inches long, cast in one piece and machined the entire length. The machines swing work 26 inches, 40 inches and 52 inches, respectively, between centers. The height to the top of the bed is 36 inches and from bed to center six inches. The machine handles work up to 12 inches in diameter over the bed and 9½ inches over the tool rest. Heavy cast legs provide a rigid support to the bed, eliminating all vibration and a shelf is located below the bed in a most convenient position.

These machines are equipped with a perfectly designed, rigidly and accurately constructed tailstock which may be located in position or released from fixed position by a half turn of a special wrench with which the machine is equipped. The tailstock spindle is 1 5/16 inches in diameter, bored for a No. 2 Morse taper. Adjustments are made by means of a conveniently located hand wheel and the spindle is held rigidly in place by a quarter turn of the lever provided for this purpose.



Here Is a New Speed Lathe, Built in Three Sizes to Meet a Wide Variety of Requirements.

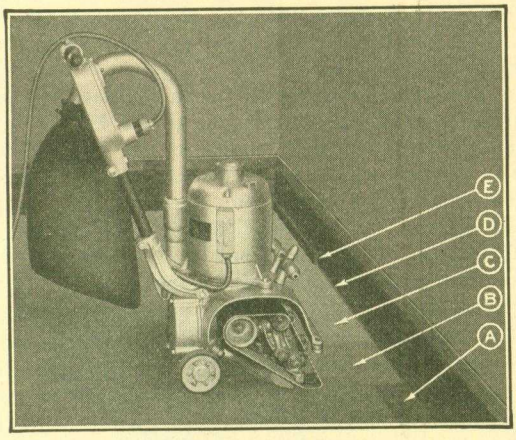
The headstock is the highest grade, polyphase, multi-speed motor which could be purchased with speed controls conveniently mounted integral with the motor. Four distinct stator windings are provided and each winding produces maximum power at its particular speed. The motor shaft acts as the spindle of the lathe and is threaded on each end for a face plate. The motor control referred to is built as an integral part of the motor and regulates the motor speeds while a switch mounted directly underneath the motor on the lathe bed provides for starting and stopping.

✣

The Metropolitan Life Insurance Co., 1 Madison Ave., New York City, has published a booklet under the title, "Safety—Preventing Commercial Vehicle Accidents," which should interest all operators of commercial vehicles.

NOW—You Can't Afford to Scrape Floors By Hand!

Floor Surfacing has been Revolutionized by the "AMERICAN EDGER"



A—Edge left unsurfaced by drum type machine.
B—Roughed off floor sanded with right hand coarse belt.
C—Finished floor sanded with left hand fine belt.
D—¼' unsurfaced strip—right at base board.
E—Shoe completely covering unsurfaced strip.

It surfaces Butt Ends with the grain of the wood!

THE "American Edger" is the first great improvement in floor surfacing machines since their original invention by this company over a quarter of a century ago. It solves the last great drawback to machine floor surfacing—that of sanding edges and matching them with the center area of the floor which has been surfaced with an ordinary drum type machine.

The "American Edger" surfaces edges, butt ends, narrow hallways, closets and all places inaccessible to drum type machines, faster and better than three men working by hand. This means a great saving in labor costs is effected and a better, finer job is produced. No more light borders—no more chatter marks and other hand scraper imperfections!

Fill in and mail the coupon below for our big illustrated broadside that tells the work of this machine in pictures.

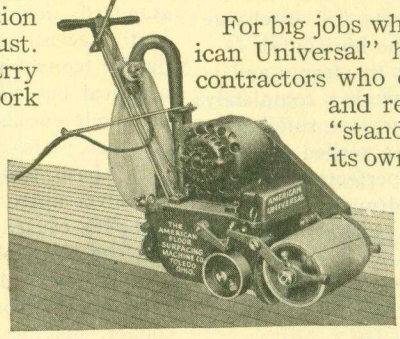
Radically Different in Design

The "American Edger" operates by means of two abrasive belts, driven by friction over surfacing shoes. This permits working right up to the base board on either side and in front of the machine. Two grits of belts can be used so that it roughs and finishes at the same time. A powerful suction system picks up every particle of dust. It's light enough for one man to carry with ease, yet powerful enough to work fast and efficiently. Full detailed description of this machine is given in our big illustrated broadside. Send for it today—it's FREE.

Contractors!

The " American Edger" is the ideal floor surfacing machine for the small contractor or builder who erects only a few houses a year and does most of the work himself. It surfaces open areas or the center of floors as well as every nook and corner of a job with no hand scraping whatever. It is the only machine that gives this complete service. It will pay you to know all about the "American Edger." With it, you can do the work yourself just when you want it done, and in addition, save many dollars of expense. Check the coupon and mail TODAY.

The American Universal Leads Drum Type Machines



For big jobs where speed is necessary, the "American Universal" has always been the first choice of contractors who demand high quality performance and recognize a machine that is built to "stand the gaff." It's a money maker for its owner and is responsible for the success of thousands of floor surfacing contractors. It's easy to earn $20.00 to $40.00 a day with this machine. Check the coupon below for the full story of "American Universal" floor surfacing business.

The American Floor Surfacing Machine Company
515 So. St. Clair St., Toledo, Ohio

Without obligation, please send your descriptive literature as checked below:

☐ The "American Edger." ☐ The "American Universal."
☐ I am a contractor. ☐ Interested in surfacing business.

Name.....

Address.....

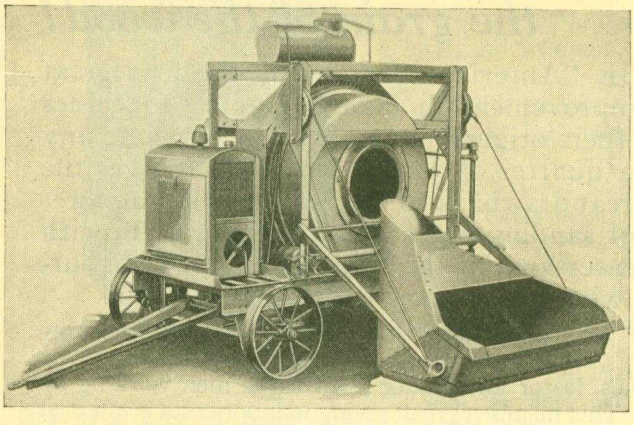
City..... *State* .....

A Greatly Improved Mixer

ONE of the pioneer manufacturers of concrete mixers has recently announced that, after many years of experiment it has ready for the market a new non-tilt mixer which embodies many improvements entirely new to this type of mixer. First, there are no struts required to stabilize this mixer when at work. It comes on the job ready to pour well mixed concrete. It is compact and rigid and will turn in a 20-foot radius.

The replaceable steel tires on the drum rollers take all of the wear as the roller track is deeply chilled cast iron, cast integral with the ring gear. It is much easier to replace one or even four roller tires than an entire roller track as is necessary where the track takes the wear. The rollers revolve on tapered roller bearings.

Steering is of the compound automobile type, strong, rugged and permitting of easy turning. Steel construction



A New, Non-Tilt Mixer, of Well Known Make, with Features Not Before Used on Mixers of This Type.

is used throughout. The mixing drum is constructed of pressed steel ends, electro-welded to a heavy steel body. The frame is built of seven-inch channels while every other part of the mixer which is subjected to strain or torsion is of steel. The all-steel skip is scientifically designed and is one of the widest ever used on a mixer.

The controls are all grouped at one end of the mixer so that the operator can view both the charging and discharging side without having to move. The efficient knock-out operates as the loader skip reaches its full discharge position at an angle of 55 degrees from the horizontal.

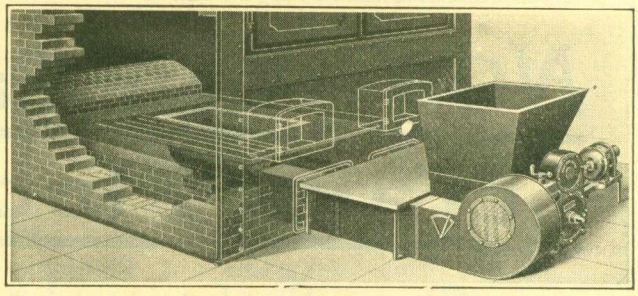
The spool shaft has been placed under the frame and is driven directly from the countershaft through a completely enclosed worm and gear which at all times are running in a bath of oil. The exact amount of water needed for each and every batch is furnished by a newly perfected patented water tank which discharges into the drum at the rate of two gallons per second. This tank makes easy the rapidly growing acceptance of the water cement ratio method for concrete control.

✣

Efficient Automatic Coal Burner

THE demand for an automatic coal burning device which would efficiently burn the cheaper grades of coal, both for heating and power purposes, and eliminate smoke, has resulted in the development of a new device so designed and constructed that when it feeds coal automatically to the fire bed, by the underfeed method, the fuel is evenly distributed over the entire bed.

By the uniform distribution of fuel, air holes in the fire are eliminated, insuring uniform combustion, and preventing blasts of air from impinging on the boiler. This accomplishment not only increases the efficiency of the boiler, cuts fuel costs and prevents smoke, but it makes it easier



An Automatic Coal Burning Device Making Possible the Efficient Use of the Cheap Grades of Coal for Small Boilers.

for the fireman or engineer to clean the fire. It is no longer necessary to run a slice bar constantly through the fire to even the bed. It also lessens the formation of clinkers.

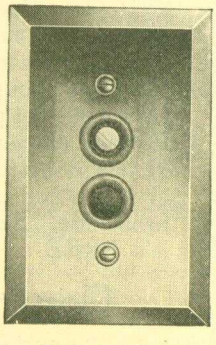
One of the difficulties encountered in the past with automatic firing of small boilers, rated up to 200 H.P., has been that the automatic feed has tended to pile the fuel up at the rear of the firebed, and unevenly distributed it, resulting in the loss of heat and the creation of smoke due to incomplete combustion. In this new device it is claimed that this difficulty has been overcome by the design of the retort and the rapid impulses of the feed.

Another feature of this new coal burning device is the adaptation of an adjustable air control to the automatic operation of the stoker. This control may be applied to the burning area to provide for quick variations in quality of coal, changes in load, and changes in weather conditions. A quick and easy manual adjustment of the control immediately establishes a correct mixture of air, maintaining uniform combustion and boiler efficiency, as well as providing for emergency peak loads.

✣

Cut Glass Switch Plates

CUT glass, mirror switch plates, made of French plate glass, cut and mirrored and also of clear glass and opal, have been brought out by a company specializing in builders' hardware and electrical specialties. These plates come in response to a demand which, though new, is already recognized as standard, for glass switch plates. Until recently a glass plate for a duplex convenience outlet was not practical but the fact that it now is has made possible the new popularity of these plates.

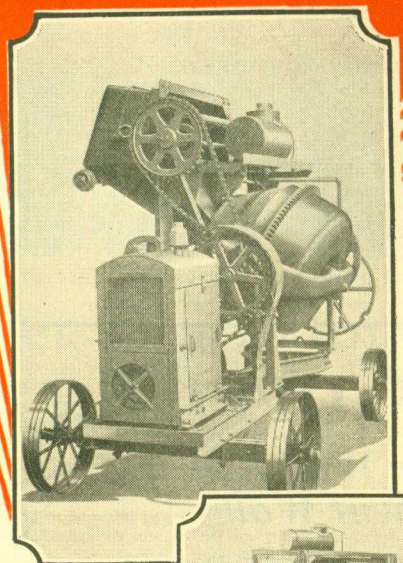


Switch Plates of French Plate Glass Cut and Mirrored or Clear or Opal.

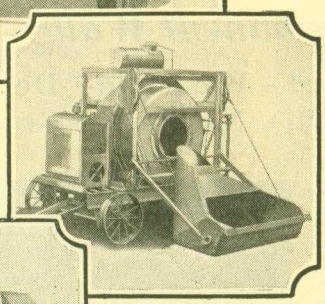
In these plates the tendency for the silver mirrored surface to tarnish and peel, caused by moisture in walls and the close pressure of the plates against the wall, has been entirely overcome by coating the backs with copper, making them impervious to atmospheric conditions. To offset the tendency which most metals have to tarnish when in contact with the hands these plates have the small busings finished in chromium plate which is proof against tarnish and which also protects the outlets against chipping and injury from the sharp glass edge.

These plates are made in several styles for regular push button switches, for round metal handle tumbler switches, for square composition handle tumbler switches, for flush type receptacles, for bell push buttons and in any number of multiples and combinations, including bullseyes for pilot lights.

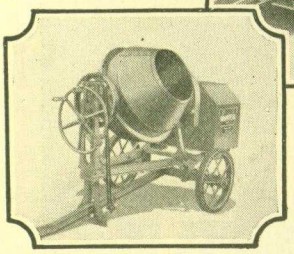
Only WONDER offers you ALL these in one Mixer!



Wonder 7-S with Track Loader and Tank



Wonder Non-Tilt 10-S with Loader and Tank



Wonder 3½-S Trailer

Quality Every Wonder Mixer today has a nineteen-year-old reputation for efficiency and dependability to maintain. Wonder founded the single opening tilting mixer industry—the first and greatest step toward speed and economy in the job of pouring concrete. In the nineteen years since, Wonder has led the way in the improvement and development of better, faster and more economical mixers.

Features Wonder has brought more improvement and progress into the concrete mixer industry than any other mixer—and still leads—but never at the sacrifice of quality in construction or endurance in actual use. No new feature has ever been added to any Wonder Mixer until rigid and severe tests under working conditions have proved positively that it was practical.

Today the Wonder gives you the one mixer for *speed* and *endurance* for any kind of concrete work. There is a Wonder just right for any job, large or small. Its *ten outstanding features* offer you:

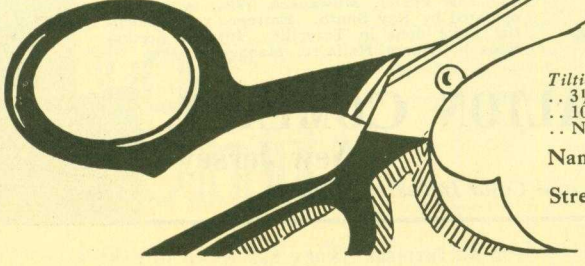
Fast, thorough mixing—rapid charging and quick pouring discharge—drum bearing guaranteed for the life of the mixer—simple one-man control—rigid, short-turning truck—clutch on main drive shaft—dependable power plant—Wonderquick, self-measuring water tank—Alemite lubrication—and now the Wonder Skip Bumper.

Price With all this Dependability, Endurance—with all these improvements and exclusive features—*Wonder prices are now lower.* Increasing output to meet the steady growing demand for Wonder Mixers effects production economies. This with savings in method—not materials—brings you lower prices.

Construction Machinery Company

103 Vinton Street
WATERLOO, IOWA

Clip this Coupon and Mail it Today for Our New Low Price List



103

Construction Machinery Co., Waterloo, Iowa.

I'm certainly interested in bigger profits this year. Please send me catalog and prices on machine checked below.

Tilting Loader Models
.. 3½-S .. 5-S .. 7-S
.. 10-S .. 14-S
.. Non-Tilt Mixers

Tilting Trailers
.. 3-S .. 3½-S
.. 5-S With Auxil. Hoist for plaster

Name _____

Street _____

City _____ State _____

NEWS of the FIELD

Overhead Door Distributors Meet

NEARLY 200 distributors of the Overhead Door Corporation, Hartford City, Indiana, gathered from all parts of the United States to attend the second annual distributors' convention of this firm. The two days were devoted to an inspection of the factory with the entire company organization on hand to answer questions, a trap shooting contest, a sales contest, sales meetings and a banquet on Monday evening at which the principal speaker was Ira Nelson, of Montpelier, Indiana.

✣

Elect S. P. A. President

AT the thirteenth annual meeting of the Southern Pine Association, held in New Orleans, La., F. W. Reimers, Hammond, La., was elected president of the association to succeed A. J. Peavy, of Shreveport, La.

Wahl Joins Horn Organization

AN announcement has been made that W. H. Wahl, formerly advertising manager of the American-LaFrance Fire Engine Company, has joined the A. C. Horn Company, Long Island City, as sales promotion manager.

✣

G. E. Issues Wiring Specifications

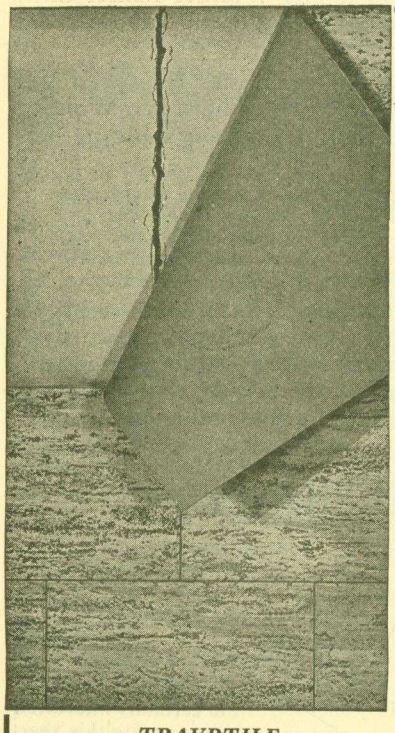
THE merchandising department of the General Electric Company, Bridgeport, Conn., is now issuing, for the use of the architect, specifications in which the G-E wiring system is scientifically applied to apartment houses and apartment hotels. These specifications show the wiring layouts for typical apartments of the one-story and two-story types, and also for the simplex, duplex and studio designs.

Although the various materials entering into the G-E wiring system have, of course, been utilized for years in apartment house wiring, they have not before been brought together in such unified manner as is presented by these specifications.

✣

Now Chain Belt Distributor

THE Porter Supply Company, 508 First Huntington National Bank Building, Huntington, W. Va., now represents the Chain Belt Company, of Milwaukee, as distributor of its line of Rex mixers and pavers. Charles S. Porter is president of the company, having organized it a number of years ago after 15 years of service in the construction machinery industry. In addition to the Rex line of mixers and pavers the company will also handle the contractors' equipment line which includes buckets, elevators, central mixing plants and Stearns belt conveyors.



TRAVRTILE
Imitation Italian Travertine Marble

A New Wall Covering

Applied to Plaster or Wall Board Makes a Permanent Wall

Inexpensive—Easily Applied—Washable—Decorative
Built Up in Linseed Oil—No Surface Cracks

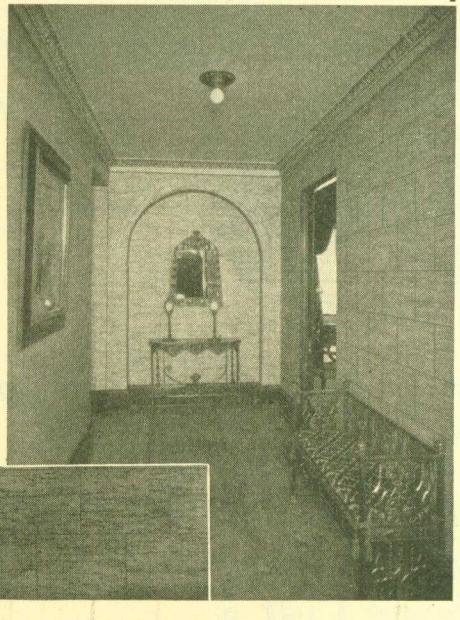
Travrtile fabric—imitation Italian Travertine Marble—made in any color, satisfying every taste. Applied like wall paper.

Travrtile on all walls assures permanency and beauty. Desirable for hotels, apartment houses, banks, public halls, stores, offices, etc.

Can be easily repaired by cutting out and replacing damaged blocks with the same material. Can be removed from the wall, leaving the wall in its original condition.

Lincrusta-Walton is made in a variety of patterns suitable for all rooms.

Write today for free samples and literature.



The new Pfister, Milwaukee, Wis., owned and operated by Ray Smith. Entrance to Presidential Suite done in Travrtile. Interior decorations by Harry Halfacre, Manager.

LINCRUSTA-WALTON COMPANY
Hackensack New Jersey
Division Tait Paper and Color Industries, Inc.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

FIREPLACE CHARM WITH FURNACE LIKE HEAT

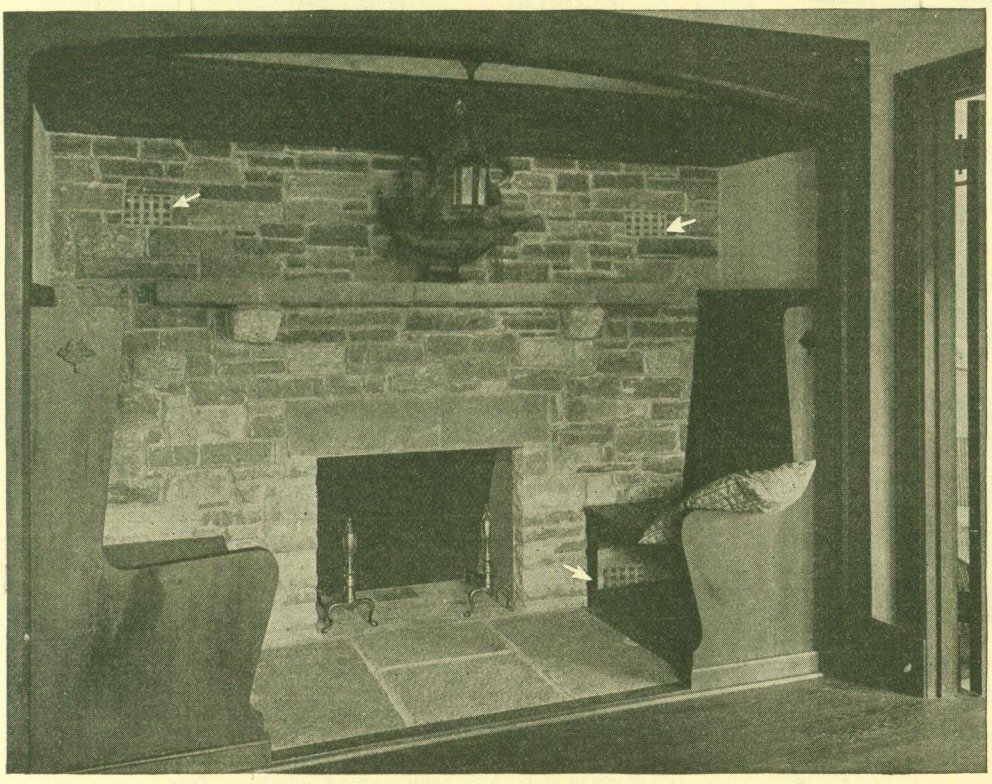
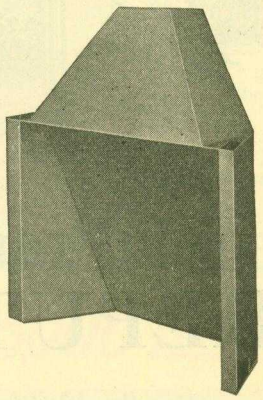


Photo at left shows fireplace equipped with Heatilator. Any material can be used for the mantel, etc. The Heatilator is built into the masonry. Arrows indicate Heatilator warm air outlets and cold air intakes. Accompanying diagram shows the plan.

Below: Heatilator as it is delivered, freight prepaid, ready to install. It is a complete unit up to the chimney flue, including damper and smoke chamber. No assembling necessary.

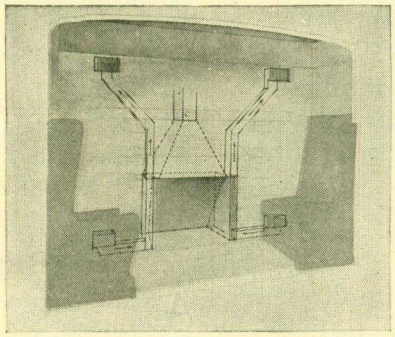


Let Heatilators save you money— and pay you a profit!

DUE to a big price reduction made possible by recent improvements in the design, it now costs no more to build a fireplace with than without a Heatilator Fireplace Unit. This is because of actual savings in labor and materials. The use of the Heatilator not only is an economy but positively assures successful fireplace construction and double heat from same fuel.

We Guarantee satisfaction, or will refund the full purchase price and pay up to $20 extra to cover cost of removal and return.

The Heatilator is a double-wall form—an enclosed heating chamber that surrounds the fire. Cold air from off the floor (or from outdoors if desired) enters this chamber, is heated, and delivered into the room. Any mason can install it in a few hours, saving at least a day's labor plus smoke damper, smoke chamber and firebrick.



This diagram shows how Heatilator was installed in the Early American fireplace above.

Extensively Advertised—Full page or full column ads are appearing regularly in consumer magazines reaching millions of people. They show how fireplaces built with Heatilators are guaranteed to give double heat from same fuel and to operate with complete success. Thousands of inquiries received show that people realize the need of Heatilators. They are looking for Heatilator fireplaces in the homes they buy. So the use of Heatilators will not only save you money but increase your profits by increasing resale values.

New Planbook Free—Send today for our big illustrated Planbook. It contains many photographs and drawings of Heatilator installations—interesting, full of ideas. Mail the coupon!

Agents and Dealers—There are many territories where we are looking for additional representatives on an attractive basis. Write for particulars.

HEATILATOR COMPANY
641 Glen Ave., Colvin Station, Syracuse, N.Y.

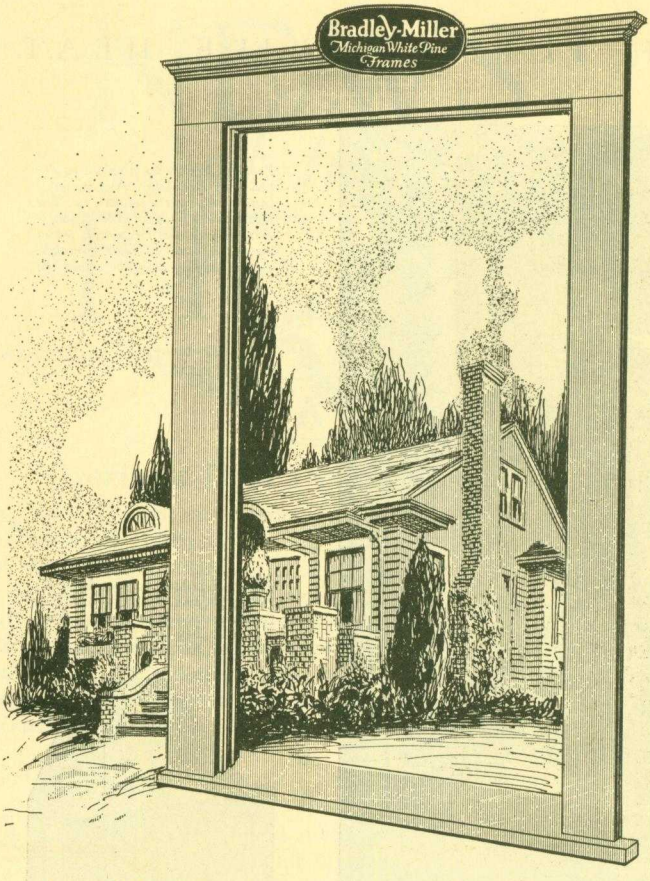
Heatilator Fireplace Unit

Heatilator Co., 641 Glen Avenue,
Colvin Station, Syracuse, N. Y.

You may send a copy of your new Planbook of Modern Fireplaces.

Name.....

Address.....



Sell Frames with a REPUTATION

Bradley-Miller frames have been on the market and in use long enough to demonstrate fully their quality and reliability.

Time has proved their durability. The years have shown that Bradley-Miller Frames will not warp, split or shrink and swell.

Bradley-Miller Frames are unsurpassed in materials, design or workmanship. They are made of the finest wood it is possible to put into frames —Michigan White Pine.

Sell these famous frames that have a reputation for delivering satisfaction and building sales.

Write for the BRADLEY-MILLER booklet.

BRADLEY-MILLER & CO.

Marquette Street,
BAY CITY, MICHIGAN

McKim Joins Federal Truck

THE Federal Motor Truck Company, of Detroit, has announced the appointment of C. D. McKim as advertising manager. For 12 years Mr. McKim was associated with Continental Motors Corporation, having charge of sales and advertising for the greater part of this time.

C. D. McKim, Federal Motor Truck Co.

Truscon Makes Appointments

APPOINTMENT of three vice-presidents of the Truscon Steel Co. of Youngstown, Ohio, was made this week by Julius Kahn, president of the company.

C. I. Auten, who began as an engineer with Truscon 17 years ago, has been named vice-president in charge of sales in the standard building division of the firm. Under his charge will be sales of structural steel, steeldeck roofing and transmission structures. This appointment continues Auten's connection with the complete building sales end of Truscon.

M. T. Clark is vice-president in charge of sales of the steel window division, with which he has been identified for the last nine years. Clark was originally an architect, and followed a natural interest in industrial standardization into the manufacturing field. He is credited with much of the popularity of standardized steel windows at the present time.

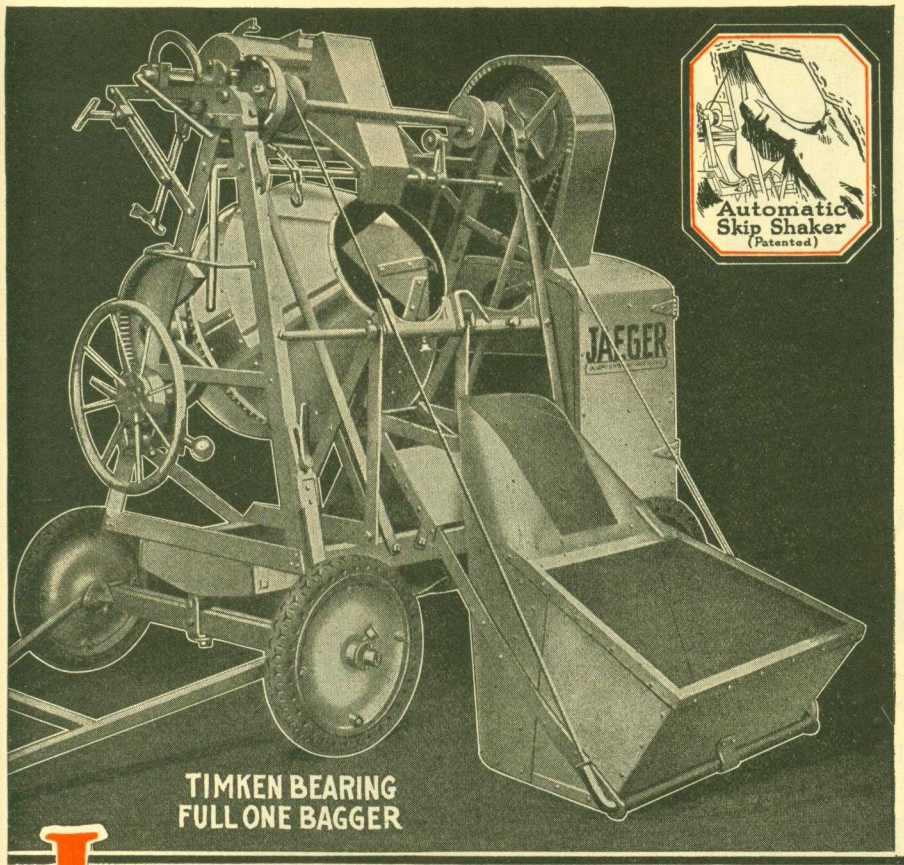
C. D. Loveland, formerly manager of the Pittsburgh district of the Truscon organization, is made vice-president with headquarters at Newark, N. J. He will be in charge of Truscon distribution in that state.

Will Represent Black & Decker

AN announcement from the Black & Decker Mfg. Co., Towson, Md., states that R. C. Bastress. formerlv of the Fort Wayne Iron Store Company, has joined its organization to handle Indiana and part of Michigan. L. W. Beuhausen, formerly with Slocum & Kilburn, has been employed to handle Black & Decker products through western Massachusetts. G. N. McCarthy will represent the company in the Buffalo territory, taking the place of H. B. Austin, who has been transferred to the Chicago district.

Reopen St. Louis Office

THE North Western Expanded Metal Co., of Chicago, has just re-opened its St. Louis office at 401 Lieuderman Building. Walter Rasmussen will be in charge of this office and is now prepared to render a complete personal service to anyone interested in expanded metal products and lath.



HERE'S a Timken bearing, full one bag tilter, with Automatic Skip Shaker and "Flat Spot" Drum, *for the usual price of a half bagger.*

It's built of the best—steel and forgings and semi-steel gears—light, portable and 50 per cent stronger.

Has Jaeger Accurate Measure Water Tank; gives you faster loading, a better mix and a 5 second automatic discharge.

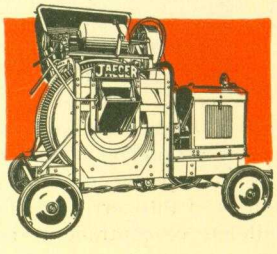
Mail the Coupon below for prices

Jaeger Timken Tilters Guarantee More Batches per Day - *OK'd by over 75,000 users*

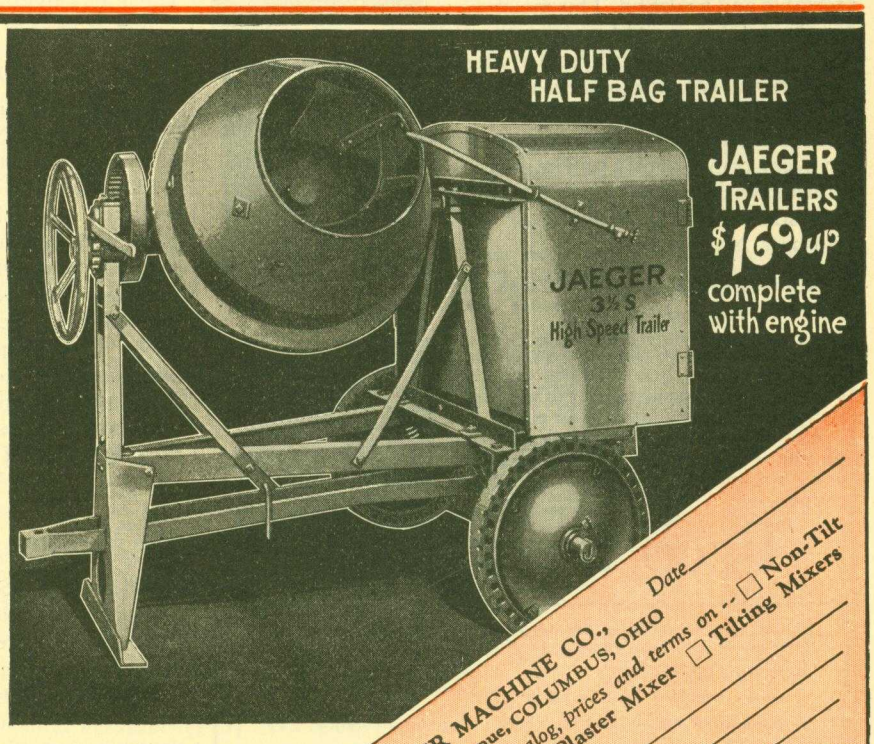
MAKE fast hauls on any roads with this trailer—built for heavy duty with Timken bearings, spring shock absorbers and oversize cushion tires.

Get more batches a day with the "Flat Spot" remixing drum, 5 second discharge and semi-automatic dump. It's powered with Hercules engine, Wico magneto. It's built to last.

The Jaeger Machine Co.
521 Dublin Avenue Columbus, Ohio
Branches and Service in Over 100 Cities



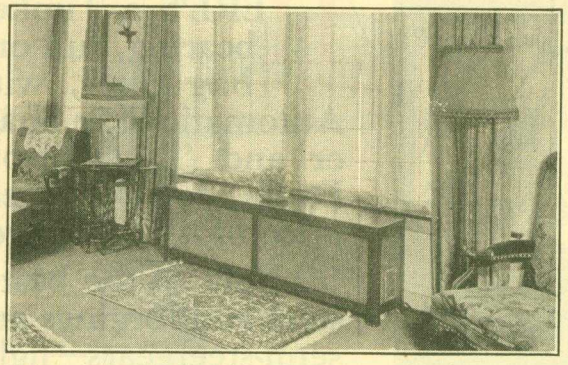
Heavy Duty
Non-Tilt
MIXERS
7, 10, 14, 21, 28 Ft. SIZES



JAEGER TRAILERS $169 up complete with engine

Send Coupon for Catalog, Prices and Terms →

THE JAEGER MACHINE CO., Date
521 Dublin Avenue, COLUMBUS, OHIO
Please send catalog, prices and terms on ☐ Non-Tilt Mixers ☐ Plaster Mixer ☐ Tilting Mixers
Name
Address
City
State



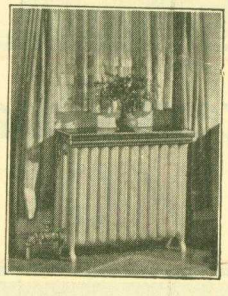
Buildings Rent Faster sell easier—when radiators are equipped with Trico

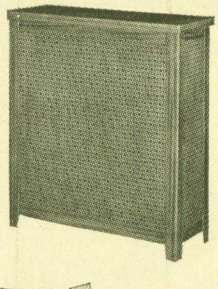
Trico Radiator furniture transforms all unsightly radiators into beautiful and useful pieces of furniture—shelves, window seats, consoles. They are furnished in any desired color to harmonize with other room furniture.

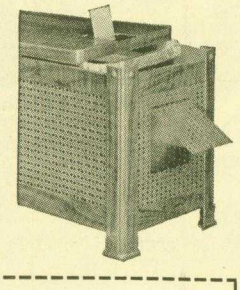
They stop smudge. Cleaning and redecorating costs are greatly reduced, often as much as 75%.

The patent Trico humidifying waterpan concealed beneath the cover maintains proper moisture in the air, making the rooms far more comfortable and healthful. This moisture is absolutely essential in preventing furniture and woodwork from drying.

Ten years of development in radiator furniture have made Trico the leader in this field. A district manager in every principal city will be glad to consult with you and serve you. Let us estimate on Trico Radiator enclosures. No charge.







Contractors' and Builders' Franchise Plan

If you haven't received a copy of the New Trico Franchise plan, fill out the coupon now. It means money to you and there is no investment on your part.

A copy of the latest Trico book of ideas on interior decoration will also be sent you on request. Simply check attached coupon.

TRICO, INC.

TRICO, Inc., Subsidiary to Art Metal Radiator Cover Co.,
1719 N. Kolmar Avenue, Chicago, U. S. A.
Gentlemen:

—— Send New Trico Franchise Plan.

—— Send estimate and Trico book on interior decorating.

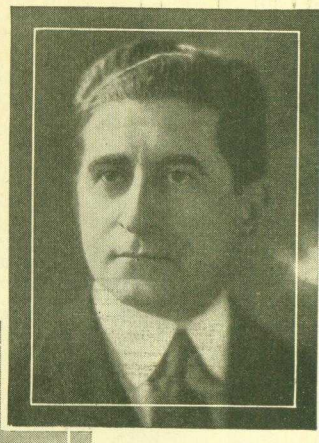
Name _____

Address _____

"2"

Bates Makes Announcements

THE Bates Valve Bag Corporation, of Chicago, has announced the appointment of H. A. Schaffer, formerly conservation engineer of the Portland Cement Association, as Eastern sales manager. The Bates offices in New York City and Nazareth, Pa., will be headquarters for Mr. Schaeffer in his new capacity.



H. A. Schaffer.

J. I. McCants, Bates Valve Bag Corp.

J. I. McCants, for many years identified with the cement industry in the South, has recently become affiliated with the Bates sales organization and will represent the company in the South as Southern sales manager.

This company has recently established a factory at Birmingham, Ala., to supply the needs of its Southern customers.

✣

Sargent & Company Election

AT a recent meeting of the stockholders of Sargent & Company, New Haven, Conn., followed by a meeting of the directors, two new directors were elected, Bertram W. Burtsell and Edward Harding. George Lewis Sargent tendered his resignation from the presidency of the company and Bertram W. Burtsell was elected president and general manager. Mr. Burtsell received his early training with Browne & Sharpe Manufacturing Company, where he learned the machinist trade. He was with the Packard Motor Car Company, as factory manager, for several years and since 1920 has been president and general manager of McKinnon Industries, Ltd., St. Catherines, Ont., and the McKinnon Dash Company, Buffalo, N. Y. Mr. Harding is a member of the legal firm of Campbell, Harding & Goodwin, New York City.

✣

Name T. L. Smith Distributor

THE T. L. Smith Company, of Milwaukee, manufacturers of mixers and pavers, announce the appointment of the R. P. Sweeny Company, of Greenville, as its representative for the entire state of South Carolina with the exception of Chester, York, Chesterfield and Marlboro Counties. This account was formerly handled by the Smith distributor at Charlotte, but the new arrangement will put Smith service and sales facilities in a better position to handle the requirements of customers in this territory. The new distributor will handle a full line of contractors' and industrial equipment.

A Bath of the Future
The Combination Bath Tub

Regular Bath, Shower Bath, Seat Bath. Foot Bath, Child's Bath. All in one piece, Patented

Semi-Vitreous Porcelain and Enameled Iron Ware

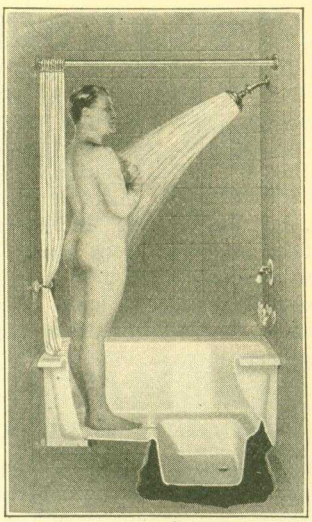


PLATE 10-E
Enameled Iron Ware, 44x30 inches to tile in recess, only. Enameled white front. Waste in foot section either right or left hand end.

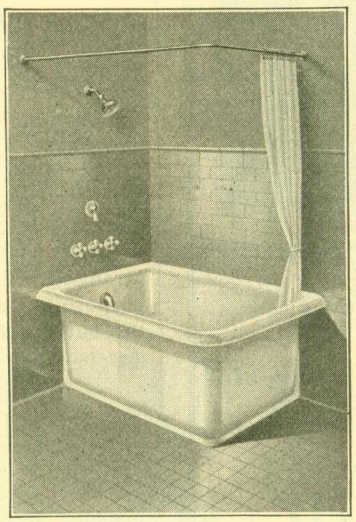


PLATE 11-E
Enameled Iron Ware, 44x30 inches to tile in right or left hand corner. Enameled white all exposed parts. Same as Plate 10-E except for corner installation.

PLATE 30-E
Semi-Vitreous Porcelain Ware. 44x30 inches to tile in right or left hand corner, or in recess. Glazed white all sides.

The COMBINATION BATH is an entirely new departure in the development of modern sanitary comfort, comprising, as it does, a SEAT, FOOT, SHOWER and CHILD'S bath, all in one.

It possesses many essential common sense features not found in any other types. For instance, it is more comfortable and less wasteful of water; it is possible to bathe and treat the feet without the removal of all clothing, by having only a small amount of water in the foot section. The ledges on the end and both sides of the foot section enable one to treat the feet conveniently, while the dimensions of the foot section allow ample space for the feet when standing or sitting. The mother or maid can bathe a child in comfort under ideal conditions. The child can be bathed on the seat section, and then, if desired, dipped in the water filled foot section.

Remember, when you are considering the length of the COMBINATION BATH in comparison with other kinds of styles, that you do not assume a half reclining position when using the COMBINATION BATH, but instead a sitting position; so that your length from the knee down does not count in the length of the space required as it does when using the ordinary bath; also that the uncomfortable, cramped position assumed in the latter case is entirely removed and supplanted by a natural, comfortable posture, such as experienced when sitting in an easy, comfortable chair with just as much room in every direction as a person would have in using the ordinary bath of greater length.

Furthermore, when the COMBINATION BATH is used as a shower bath it is equal to any standard type shower receptor. The arrangement of the seat and foot bath permits the taking of a head or body shower bath, the latter without wetting the hair. This commends it, and is a feature which should not be too lightly regarded; in fact, we strongly recommend installation of showers in connection with the COMBINATION BATH.

When one desires to get out of the COMBINATION BATH, he can do so without the aid of grip-rails or even the use of his hands, by merely standing up—just like arising from a chair.

Water can be turned on and off or discharged without changing from a sitting position, instead of being obliged to slide along the bottom of the tub, in order to reach the valves, as is necessary when using any other type bath.

In planning bath rooms, space saving is ofttimes a most important problem, which can be readily and satisfactorily solved by the adoption of the COMBINATION BATH. This is all accomplished without encroaching on the space required for persons weighing as much as 250 pounds to an extent that comfort is sacrificed in any degree.

Tone will be given the bath room wherein such a distinctly attractive and meritorious fixture as the COMBINATION BATH has been installed—an added attraction fully appreciated and not likely to be overlooked by your guests.

We furnish plans for installing the COMBINATION BATH, avoiding the necessity for having any part of the waste fittings extended through the ceiling below the bath room, requiring a suspended ceiling; which, in many cases, would prove undesirable.

These plans provide for raising the bath about four inches above the floor level, and filling in the open space with tile. This increases the extreme height of the tub from floor to top to about twenty-one inches, which is slightly less than the height of a staple bath on legs or base.

Many of the COMBINATION BATHS have been installed in this manner, and have proven entirely satisfactory.

Plate 126-E "The Tranquil" all white Syphon Jet Water Closet Combination.

Write Us for Descriptive Booklet Giving Measurements and Other Details

WHEELING SANITARY MFG. CO.
WHEELING, W. VA.

Manufacturers of High Grade Plumbing Fixtures

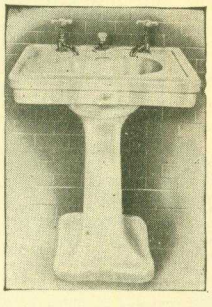
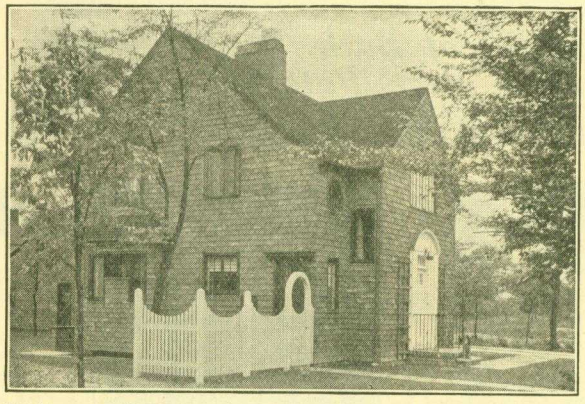


Plate 100-E Lavatory on Pedestal. Two sizes—24x20 inches and 26x22 inches.

CABOT'S
DOUBLE PLY

Go All the Way



Residence of H. I. Glazier, Asst. Sales Mgr., General Fireproofing Co., Youngstown, Ohio. Built to First Prize Plan of Weyerhauser Lumber Co. Competition, 1926. Insulated with Cabot's Quilt. Exterior Walls, Cabot's Stained Shingles. Exterior Trim finished with Cabot's Old Virginia White Collopakes. Johnson & Carlson, Youngstown, Ohio, General Contractors.

When you insulate that next group of houses, to comply with popular demand,—don't just—insulate. Go all the way and insulate with

Cabot's Quilt

Then tell about it in your advertising.

You'll feel better:—less money spent in building—less time spent in selling—more profits—always more profits in

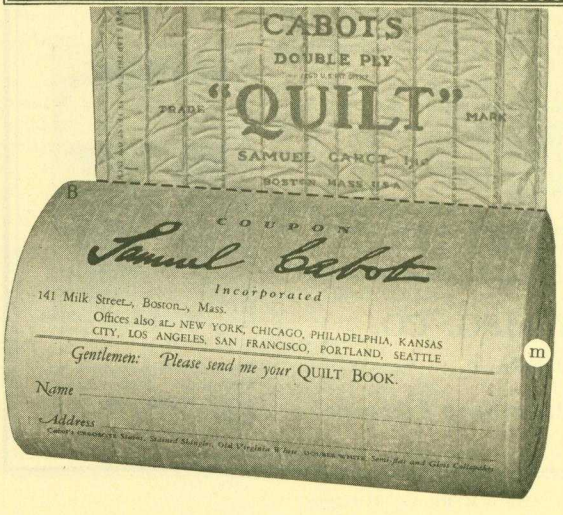
Cabot's Quilt

Cut the coupon below (Roll of Quilt) and send it in today for full Quilt Information and U. S. Bureau of Standards Home Insulation Tests.

FOR EFFECTIVE—ECONOMICAL HOUSE INSULATION, EMPLOY

Cabot's Quilt

IN SUCCESSFUL USE FOR OVER 30 YEARS



A. G. C. Has New Manager

EFFECTIVE May 1, 1928, Gen. R. C. Marshall, Jr., has resigned as manager of the Associated General Contractors of America, a position which he has held for eight years. He will be succeeded by D. A. Garber, of New York, who was the first president of the contractors' organization which he helped to found. Gen. Marshall becomes president of the Summer Sollitt Company, of Chicago. Mr. Garber, in accepting the new position, severs his connection with the North-Eastern Construction Co., New York, of which he has been president since 1904.

✣

S. P. A. Offers B. & L. Service

ORGANIZATION of a building and loan association service department, as a part of the Southern Pine Association promotional home building activities, was announced by H. C. Berckes, secretary-manager, at the recent annual meeting of the association. The purpose in organizing this service is to make it possible, from association sources, for the average citizen to be given authentic and reliable guidance as to how best he can arrange the financing and building of a home. It is not the purpose to do the actual financing of home building activities but to render service both to prospective home builders and building associations.

✣

Inland Steel Announcement

THE Inland Steel Company, of Chicago, announces that H. L. McCauley has been appointed district sales manager of the company's Milwaukee office, succeeding C. M. Easterly, who recently resigned. M. E. Gregg will succeed Mr. McCauley as assistant district sales manager in Milwaukee, coming there from a similar position in the St. Paul office.

✣

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of AMERICAN BILDER, published monthly at Chicago, Ill., for April, 1928.
State of Illinois }
County of Cook } ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared E. L. Hatfield, who, having been duly sworn according to law, deposes and says that he is the general manager of the AMERICAN BUILDER and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are:
Publisher—American Carpenter & Builder Co., Chicago, Ill.
Editor—Wm. A. Radford, Chicago, Ill.
Managing Editor—B. L. Johnson, Chicago, Ill.
Business Manager—E. L. Hatfield, Chicago, Ill.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Wm. A. Radford, Chicago, Ill. — B. L. Johnson, Chicago, Ill.
H. M. Radford, Chicago, Ill. — E. L. Hatfield, Chicago, Ill..
R. D. Radford, Chicago, Ill. — G. W. Ashby, Berwyn, Ill.
Wm. A. Radford, Jr., Chicago, Ill.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)
None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

E. L. HATFIELD.

Sworn to and subscribed before me this 2nd day of April, 1928.
ANDREW JOHN NAUMANN.
(My commission expires October 25, 1929.)

Style–now within any flooring estimate

*CELLized Oak Floor Blocks

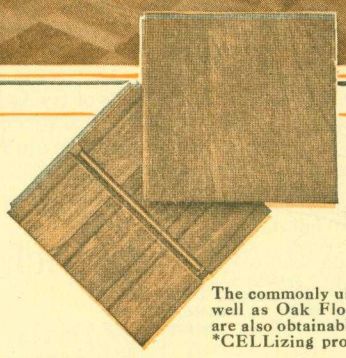
may now be laid in any home, at a cost within the most modest budget. For the first time, the builder can figure in any building estimate, a design floor that combines style, utmost beauty, and permanence, and that will enable the owner to plan room decoration upon a floor foundation that is a real style element. Such a floor has heretofore been possible only in the most pretentious homes; but today, the cost, laid and finished, is but little higher than the usual strip flooring.

The blocks are laid directly over a wood or cement sub-floor in "Everbond" (a plastic cement) without nails. Each square is a complete unit, three or more oak strips splined together, and is laid more easily and quickly than strip flooring. "Everbond" is sound-deadening besides, and this method results in a solid, quiet floor that will not squeak.

DESIGNED IN UNITS · LAID WITHOUT NAILS

Remains permanently tight and level

A *CELLized Block floor will not contract or expand. Each square is impregnated by a chemical process (*CELLizing) which protects the wood from moisture, and maintains exact uniformity in the size of the squares. It remains firm and tight—an economical floor, easily finished, with beauty that at once attracts the eye, and adds to the rental or sale value of a home far beyond its cost. It is also insect and rodent proof. Full directions for laying will be mailed on request by *CELLized, Inc.



Three sizes—6¾, 9, and 11 inch squares will proportion the design to any room area. Laid in diagonal, half-center, or regular square patterns. In remodeling, lay directly over old floors, in "Everbond", without nails.

The commonly used narrow face flooring, as well as Oak Floor Planks, random widths, are also obtainable chemically treated by the *CELLizing process. Write for literature.

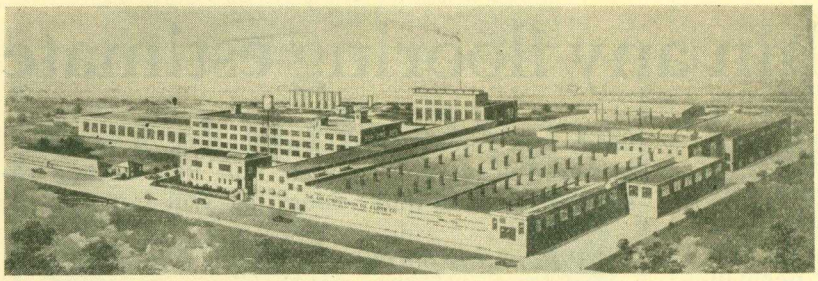
*CELLized Oak Floor Blocks

are sold through lumber dealers everywhere; manufactured by

E. L. BRUCE CO. . . . . Memphis, Tenn.
LONG BELL LUMBER CO. . . . Kansas City, Mo.
TENNESSEE OAK FLOORING CO. . . Nashville, Tenn.
NATIONAL HARDWOOD FLOORING CO., Nashville, Tenn.
BRADLEY LUMBER CO. of Arkansas . Warren, Ark.

Write for booklet "Style in Oak Floors" to

***CELLized Inc.** MEMPHIS, TENNESSEE



Panorama Picture of Columbus-Union Oil Cloth Company, Columbus, Ohio, with New Additions. The three-story building in the center left, the adjoining one-story building and the boiler house in the center background are of recent construction.

Complete Expansion Program

AN expansion program involving an expenditure of $250,000 has just been completed by the Columbus-Union Oil Cloth Company, Columbus, Ohio, manufacturers of coated textiles. New facilities added to the company's extensive plants in Columbus include a boiler house, a pyroxilin department, a Wall-Tex color laboratory and a Wall-Tex testing and grading room.

These additions to the company's plant have resulted in a speeding up of production of 40 per cent, in Wall-Tex business. In addition, the flexibility of the new plants will permit a further increase in production of 25 per cent, should the necessity arise.

✣

Establish Experiment Station

TO meet the demands made on the School of Forestry, of the University of Idaho, for forest investigations and to facilitate the administration of funds for forestry work, there has been created the Idaho Forest Experiment Station. This is purely a research unit and is organized as an independent division of the university to serve forestry in the state in the same way that the Agricultural Experiment Station serves agriculture. Forest research has been a major activity of the School of Forestry for a term of years, but a large part of the cost of the work has been made a charge against instruction rather than against research and the creation of this special research division will make it possible to segregate these expenditures.

✣

Law for the Builder

(*Continued from page 128*)

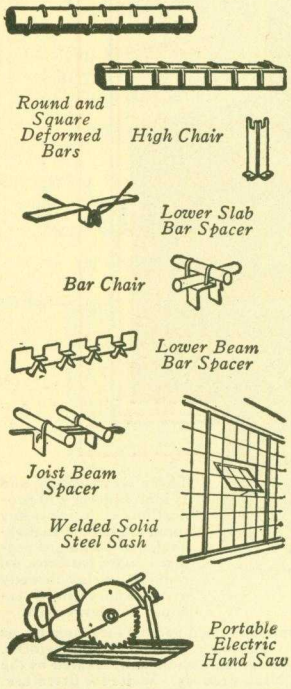
"Now, I don't believe an unsigned note's worth the stub pen it's written with," the builder declared.

"Why not? There's Jones' name in his own hand, so what difference does it make whether it's at the end or in the body of the note itself?" the bookkeeper argued.

And the bookkeeper was right.

"It is not necessary that the signature of a party to a contract should appear at the end thereof. If his name is written by him in any part of the contract, or at the top, or the right or left hand, with the intention to sign or for the purpose of authenticating the instrument, it is sufficient to bind him. When a signature is essential to the validity of an instrument it is not necessary that the signature appear at the end of the instrument. If the name of the party whose signature is required is written by him in any part of the instrument, for the purpose of authenticating it, it is a sufficient signature," says the Pennsylvania Supreme Court, quoting from a leading legal textbook.

Unusual Service for the Contractor



Ryerson combined service on all steel products saves time, money and trouble

The Special Contractors and Builders Division of Ryerson Steel-Service is without parallel in the building fields.

This department has its own warehouses and provides complete service on all reinforcing for concrete, Steel Joist, Metal Lath, Steel Sash, and all the various steel building products are also included.

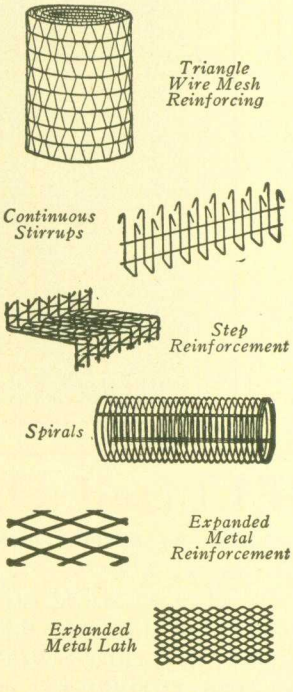
In addition, structurals, bars, plates, sheets, rivets, bolts, wire, etc., are furnished from the general steel departments. Trench braces, jacks, electric drills, and hundreds of other tools needed on every job are supplied by the machinery and small tool departments.

Contractors use the Ryerson Warehouses as if they were their own. Reinforcing steel, lath, sash and other miscellaneous materials are kept under cover until they are ready to use each item. Delivery is according to their schedule.

Large fleets of trucks and private switch tracks help provide service unequaled by any other source of supply.

All types of jobs are figured and lump sum or pound price quotations prepared.

Write for Complete Information.



JOSEPH T. RYERSON & SON INC.

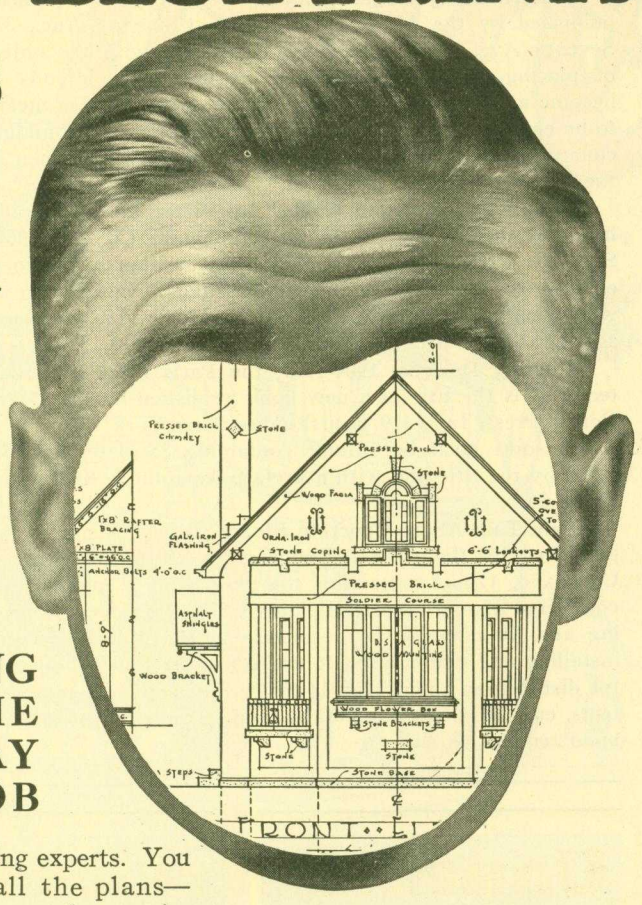
CHICAGO CINCINNATI BUFFALO MILWAUKEE DETROIT JERSEY CITY ST. LOUIS CLEVELAND BOSTON

RYERSON REINFORCING-SERVICE

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

A FRANTIC CALL FOR MEN WHO CAN READ BLUE PRINTS

AND RUN JOBS AT $4,000 TO $12,000 A YEAR



SEE how easy it is now for any man to get ahead in the building game. Nowhere else does such simple training count for so much. Nowhere else are there so many countless thousands of openings as there are with contractors, builders and real estate firms, who are constantly calling for **practical** men who can read blue prints. Seven billion dollars will be spent this year for building. Trained men are at a premium in this gigantic industry. Untold thousands are needed at steady salaries far above the wage scale.

90 DAYS' EASY TRAINING PUTS YOU ON THE WAY TO A BIG-PAY "BLUE PRINT" JOB

NO longer is it necessary for building tradesmen to spend years learning all the "mysteries" of blue print plan reading. For now you can get the blue print training in three months that has taken others years to pick up "on the job." We train you at home in spare time by the fascinating "blue-print-method" with lessons that are as easy to read as your newspaper. You do not need more than a common school education. There is no hard, grinding study—the whole course is just like playing some interesting new game.

SIMPLE AND EASY AS A-B-C

These plans and lessons come to you from the oldest and largest school of building construction in the country. This is the kind of training that puts men quickly into the $5,000 to $15,000 a year jobs, and in contracting businesses of their own. You learn from actual blue print plans—from practical building experts. You learn how to read all the plans—estimate all the costs—and supervise the entire construction of a building. You learn everything a foreman, superintendent or contractor has to know.

IF YOU LIVE IN OR NEAR CHICAGO

Visit our School for Builders, open day or evening. A thousand men attend each year. Enter any time. You can get the same training **at home,** by mail. Same plans; same lessons; same instructors. The coupon brings all facts **Free.**

A BIG-PAY JOB—OR YOUR OWN BUSINESS

With this quick, easy training, the building field is wide open to building tradesmen who want to become foremen and superintendents—or who would like to go into business for themselves. Burgert, Ill., stepped into a Foremanship at a 200% increase in salary. Clifford Scholl went from laborer to Ass't Superintendent in 8 months. Marchand, La., writes: "My salary is now increased 196%." After finishing his training, Baker, Ohio, made $3,800 clear profit in 3 months as a Contractor. Depke, R.I., increased his salary 700% in 12 months.

If you really want more money—if you hope to own a business of your own—if you want quick advancement in the building business—decide now to get this training that you must have for a real success.

Chicago Technical School for BUILDERS

DEPT. E-121, CHICAGO TECH BLDG.
118 E. 26th ST. CHICAGO, ILL.

FREE Book

Simply mail the coupon below for an intensely interesting Free Book, "How To Read Blue Prints," and full information. See what amazing opportunities open up for you in the seven billion dollar building field. Don't delay. Act now. Simply mail the coupon below.

Chicago Technical School for Builders, Dept. E-121, 118 E. 26th Street. Chicago, Ill.

Send me without obligation, your free book, "How to Read Blue Prints" and full details of the course and the opportunities in the Building field. It is understood that no salesman will call on me.

Name.....

Address.....

City.....State.....

Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

"Construction Job Management," by Charles F. Dingman, published by the McGraw-Hill Book Company, Inc., 370 Seventh Ave., New York City, is planned with the object of placing "before the builder, or man who intends to become a builder, a knowledge of the most effective means to be employed in handling the several branches of building construction and of co-ordinating the work of the men in the different trades employed." Price, $2.50.

"Everybody's Aviation Guide," by Victor W. Pagé, published by the Norman W. Henley Publishing Co., 2 W. 45th St., New York City, is a popular book written in the form of a series of lessons or instructions and is valuable to all who wish to start the study of aeronautics or who have a general interest in aviation. Price, $2.

"Winning Designs, 1904-1927, the Paris Prize in Architecture," is the title of a new book published by the Pencil Points Press, Inc., 419 Fourth Ave., New York City. It is a handsome portfolio volume containing 35 plates as indicated by the title and with a preface by John F. Harbeson. Price, $6.

"Plain Talk About Concrete Floors" is a book now being published by the Master Builders Co., 7016 Euclid Ave., Cleveland, Ohio, containing the results of a survey just completed among industrial plants which developed surprising and illuminating facts concerning the actual costs of installing and maintaining concrete floors. It will be ready for distribution about May 1, and will be sent free to architects, engineers, contractors, building owners and managers upon request.

Harvey Hubbell, Inc., Bridgeport, Conn., offers a complete catalog of its Acorn line of electric appliance, fully illustrated and containing many color plates.

The Gorton Heating Corp., 96 Liberty St., New York City, offers a new catalog, No. 93, covering the Gorton single pipe vapor heating system and the Gorton quarter turn, packing, lock valves which this company manufactures.

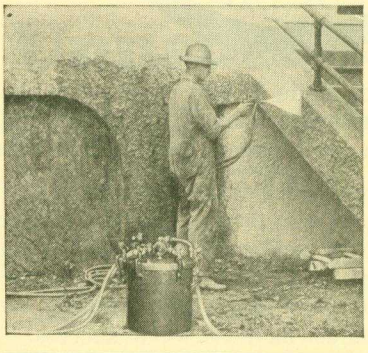
"Second Tentative Draft of a Uniform Mechanics' Lien Law" has been prepared and distributed by the Standard State Mechanics' Lien Law Committee of the Department of Commerce, Washington, D. C., for the purpose of obtaining the criticisms and suggestions of all interested in this subject.

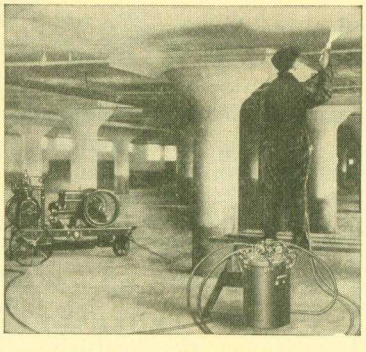
The Engineering Experiment Station, University of Illinois, Urbana, Ill., has published "An Investigation of Web Stresses in Reinforced Concrete Beams—Part II," by Frank E. Richart and Louis J. Larson. This is Bulletin No. 175. Price, 45 cents. Also "A Metallographic Study of the Path of Fatigue in Copper," by Herbert F. Moore and Frank C. Howard, Bulletin No. 176. Price, 50 cents.

Lawrence Brothers, Sterling, Ill., have published a complete catalog and supplement, No. 16, covering their line of builders' hardware of all kinds.

The Ingersoll-Rand Company, 11 Broadway, New York City, has published a 140-page book, entitled "100 Ways to Save Money with Portable Compressors," which is handsomely illustrated and full of useful information, and also a book containing, under the title "Important Rock Drilling Projects," a reprint of articles covering a number of important jobs in 1927.

The Novelty Manufacturing Co., Waterbury, Conn., offers several small booklets covering its electric ranges, electric utility stoves and porcelain bathroom fixtures all sold under the trade name Wilwear.





Outside or In—

Painting the DeVilbiss way saves time and money

No matter what nor when you paint, painting with the DeVilbiss Spray-painting System speeds up your work 3 to 5 times. Hours of time are saved and more dollars of profit made.

Besides, improved work is done on every sprayed job and you have better satisfied customers.

Investigate this well established, greater profit DeVilbiss way of painting. Interesting facts will be gladly mailed. Address—

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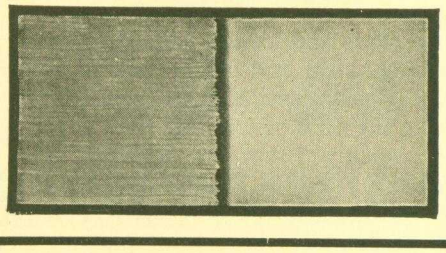
Illustrating the Comparative Hiding Power of Brushed and Sprayed Coats of Paint

The hand brush puts on an uneven coating and the thin paint in the grooves wears away quickly. . . . The DeVilbiss Spray Gun applies a strong, even paint film that covers perfectly, that is durable and that wears down uniformly.

(Illustration shows same paint applied on identical surfaces —Photograph is unretouched and greatly reduced in size.)

One brushed coat -:- One sprayed coat



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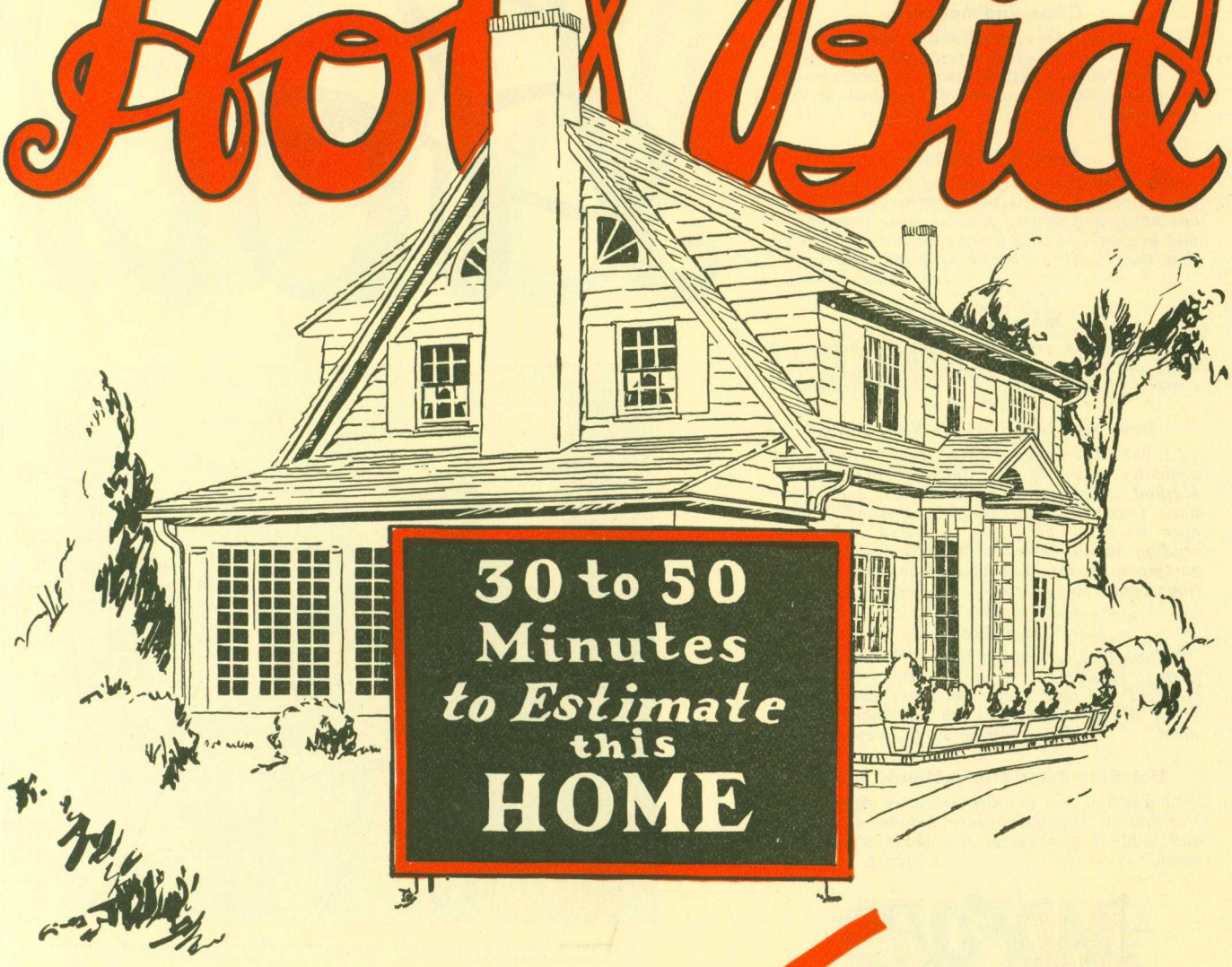
Hot Bid



Check them all off

No Material List to Struggle Over.
No Sets of Blue Prints to Buy.
No Worry About Leaving Out Items.
No Wasted Time in Finding Comparative Costs.
No Doubts As to the Accuracy of Your Bids.

Other HOLTBIDDERS Have Said

Clear and Accurate

"I received the HoltBid and found it perfectly clear to me after a few evenings' reading the HoltBidder's Instructions. I have checked it up and find it accurate far beyond my expectations." *Exeter, N. H.*

* * * * *

Uses While Learns

"Have finished about half of the HoltBid Instructions and like it very much. Already sold one house and figured several other buildings. I find in checking with houses we have completed that the HoltBid checks up very closely." *Laceyville, Penna.*

* * * * *

Most Complete

"In my fifty years of building, I have seen many estimating outfits but HoltBid is the most complete I have seen." *Jackson, Miss.*

* * * * *

Best and Instructions Very Plain

"I have been giving what time I could conveniently spare to the study of the HoltBid Method of estimating building costs and so far have found it to be the best method I have ever tried. I have not bothered yet about sending in any requests to your Service Department, because you have made your Instructions very plain indeed." *Richmond, Va.*

* * * * *

It's Great!

"Have just received my HoltBid System and wish to thank you for the layout. I think it is GREAT. I am enclosing $5.00 herewith to prove my satisfaction as my first month's payment." *New York, New York.*

* * * * *

HoltBids After 7 or 8 Hours' Study

"I had not put in over seven or eight hours learning to HoltBid before I figured a house and sold it and came out about 2% to the good." *Logansport, Ind.*

RADFORD

Hold

How often have you been in this predicament when you were pressed for time? How many hours have you wasted in figuring up jobs that your competitor got?

Your Questions

The worst job in contracting or carpentering is estimating the cost. It is not only the most tedious work, it is also the most important—because the profit is determined before the job is even started.

HoltBid is a system that guarantees greater accuracy in figuring costs than any method that has ever been developed.

There is no stumbling block on the road to success that trips more men than inability to make accurate bids.

That is why HoltBid has met with such tremendous success—thousands of men are using it.

The entire profit on a job is sometimes lost by the low-bidder because he left out some item in his estimate.

There is no chance for errors of this kind in using HoltBid. The HoltBid Forms preclude any omissions or losses through carelessness or oversight.

Practically every builder has spent money for plans only to have the customer switch to another design or not build at all.

HoltBid will save the expense of plans in developing a sale. All you need is floor plans and picture—such as shown in any plan book.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Bid

A HoltBidder can submit estimates in a fraction of the time required by old methods—and he will know his bids are absolutely accurate.

Honest Words of Praise

Pays For Itself

"Sold four or five houses and many smaller buildings, due primarily to the knowledge gained from HoltBid Service, so already feel fully repaid for the money spent with you."
Waterloo, Iowa.

* * * * *

Lands Nice Jobs

"Local attorney says the HoltBid Forms were the best specifications for contracts that could be gotten. I feel that the HoltBid had a lot to do with my landing a couple nice house jobs last year." *Amery, Wisc.*

* * * * *

Even Easy For Beginners

"I sure appreciate your books because they explain in such detail that a beginner like myself should have little if any trouble to understand them." *Toledo, Ohio.*

* * * * *

Promoted

"I want you to know that I feel the HoltBid System is largely responsible for my recent promotion." *Fargo, No. Dak.*

* * * * *

Not Difficult to Learn

"The HoltBid is well organized and am convinced that it is practical and absolutely reliable—not difficult to master—very much pleased—in the beginning I was skeptical as I could not see how it was possible to fit different localities—now I know I shall obtain great benefits and save hours of hard, tiresome estimating which has been my previous experience." *Littleton, New Hampshire.*

* * * * *

Greatly Benefited

"It certainly is interesting and I feel greatly benefited already. Can see where it will make building a profession instead of a mere vocation." *Havre, Montana.*

RADFORD

Answered Here

Sometimes a builder lets a profitable job slip through his hands because of lack of confidence in figuring the cost. He sticks to the ordinary jobs that he has done over and over.

Every table in HoltBid is based on actual figures. No approximating or averaging was done. A HoltBidder is competent to discuss building costs intelligently and snap up those chances that offer more than ordinary success.

One of Nature's laws is that no man may stand still—he either must progress or fall back. It is the natural instinct of every man to become independent and successful.

HoltBid will help you succeed because it increases your efficiency. HoltBidders have an advantage over all competitors that can neither be over-estimated or overcome.

Regardless of how much experience you may have had—how thoroughly you understand your work—you will admit you have got to keep up with modern methods in this day of keen competition.

HoltBid will enable you to make more money because it will assist you in keeping your business on the basis of service. It's the jobs that went to the other builder that gives you the feeling of failure.

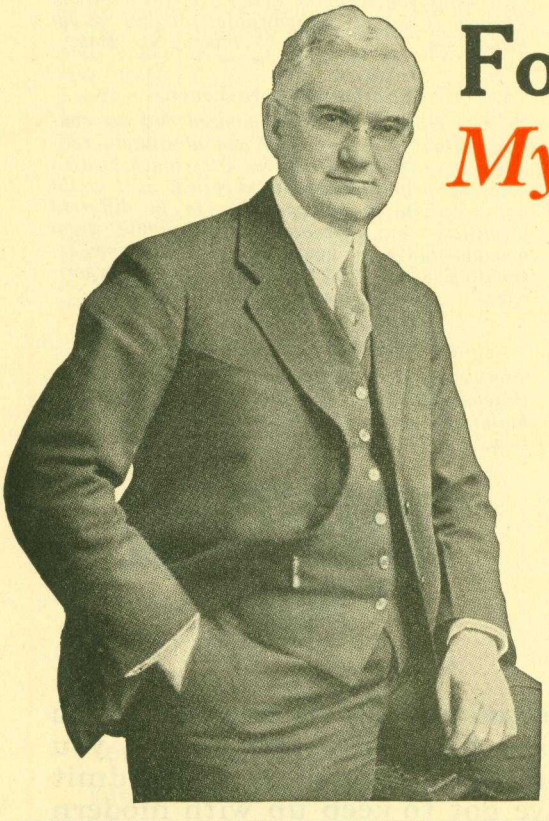
After all, ability is the deciding factor in any profession or trade. There can be no success unless you know how to carry out your work as well as your fellow men.

We know that HoltBid is worthy of your investigation and that you owe it to yourself to give our method a personal trial. Order coupon on next page is for your convenience.

$1.00 Brings HoltBid

For Your Examination

My Personal Guarantee



I GUARANTEE that the HoltBid Method of Estimating Building Costs will be satisfactory to you in every respect. All I ask is that you give it a fair trial, and that is the only condition. If at the end of thirty days you do not find the HoltBid Method exactly as represented, I will refund the small down payment you have made. During the thirty days of free examination it is understood that our corps of expert HoltBidders will hold themselves in readiness to answer any question, and to give you true appreciation of the great value of the HoltBid Method. In accepting your order I place my full confidence in your intentions to give the HoltBid Method a fair trial.

WILLIAM A. RADFORD, President,
The HoltBid Service Company.

PIN A DOLLAR BILL TO THIS COUPON AND MAIL TODAY

William A. Radford, President,
HoltBid Service Company,
1827 to 1901 Prairie Ave., Chicago, Ill.

I would like to give your HoltBid Method a personal trial. I enclose herewith $1.00 that you may send me the complete service on 30 days' approval under your money-return guarantee. If I keep the material more than thirty days it is understood that I wish to continue with HoltBid Service and will pay you $5.00 per month until the full price of $85.00 has been paid. The shipment I am to receive includes all units and a year's subscription to American Builder.

Name .....

Town ..... State .....

Street Address..... Occupation .....

Note:—The service must be entered in the name of the individual and not the firm. A.B. 5-28

(Without the American Builder, we shall deduct $1.00 from the total purchase price. If you already are a subscriber, we can readily extend your subscription for a year.)

Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

The National Lead Company, 111 Broadway, New York City, has published "The Handbook of Painting," a booklet containing information and formulas for all kinds of painting and varnishing, and also offers a "Color Guide for Painters" containing much valuable information.

The Illinois Master Plumbers' Association, Chicago Heights, Ill., has compiled and published a "Special Bulletin —on Factors to Use in Calculating the Radiation Required in Buildings Using Various Types and Kinds of Insulating Materials and the Different Applications of the Material." It is a real contribution to the knowledge of insulation values and their application. Price $1.

The Superior Sheet Steel Co., Canton, Ohio, offers a new pamphlet on its Lead-Sealed products, including roof sheets, tile, flashings, ridge roll, gutters and downspouts.

The Vento Steel Sash Company, Muskegon Heights, Mich., offers two new pamphlets on its steel sash and containing much useful information.

"More Home in Less Space" is the title of a new booklet published by the Murphy Door Bed Company, 22 W. Monroe St., Chicago, handsomely illustrated in colors to show the various possible installations of Murphy beds to make rooms doubly serviceable.

"A Treatise on Textured Wall Finishes" has been published by the United States Gypsum Company, 300 W. Adams St., Chicago. This is a very handsomely gotten up, 60-page booklet, containing numerous illustrations in color and very full instruction on the production of wall finishes with this company's plastic paint material, Textone. Price $1.

The Carney Company, 714 Builders' Exchange, Minneapolis, Minn., has published two new booklets. One of these, "A Manual Dealing with a Vital Element in Your Business," points out increased profits through handling Carney cement, while the other, "A Remarkable Combination of Quality and Economy," is devoted to a presentation of the qualities of Carney cement.

"Flat Glass and Libbey-Owens" is the title of an interesting and informative booklet published by the Libbey-Owens Sheet Glass Co., Toledo, Ohio. It is a revised edition of "Flat Glass," by Arthur E. Fowle, and tells, briefly, the development of modern flat glass manufacture and describes the present method as perfected by the Libbey-Owens sheet Glass. Co.

The Smith & Egge Mfg. Co., Bridgeport, Conn., offers a small pamphlet describing its No. 4 wood trimmer.

The Jaeger Machine Company, 521 Dublin Ave., Columbus, Ohio, presents a new catalog No. T-28, covering the Jaeger mixers of the tilting type.

The International Harvester Company, 606 S. Michigan Ave., Chicago, has prepared a group of pamphlets on the use of its trucks in various lines of industry and business.

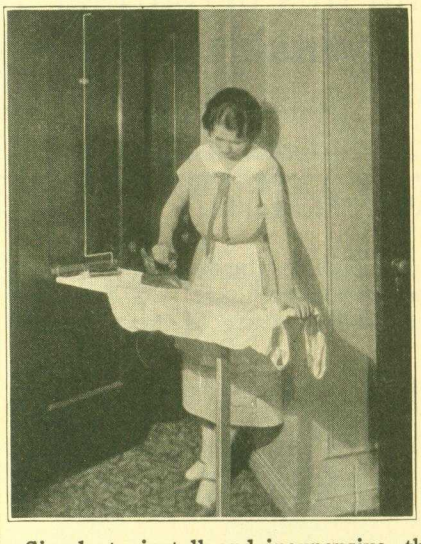
The A. S. Aloe Co., 1810 Olive St., St. Louis, Mo., has published a new catalog, Bulletin No. 102, covering its line of contractors' labor-saving equipment.

The Forest City Bit & Tool Co., Rockford, Ill., offers a handsome catalog, No. 25, in stiff covers, covering its line of mortising and boring tools.

The Kawneer Company, 2426 Front St., Niles, Mich., has published a booklet under the title, "Modern Store Fronts for Better Display," very fully illustrated and containing several color plates presenting the Kawneer store fronts.

"Trucks for the Contractor" is the title of a new booklet prepared by the truck division of Dodge Brothers, Inc., Detroit, Mich., presenting its line of Graham Bros. trucks.

WHAT PRICE FURNITURE



Redybord Saves Grief Worry Dollars

This illustration shows "REDYBORD" attached to a door. Can be fastened to a closet door, bathroom door or on the springs of an In-A-Door Bed.

REDYBORD *for Homes, Hotels, Apartments*

Simple to install and inexpensive, the REDYBORD saves the contractor time and money. Hotels furnish one field alone which can be made the source of a good income by energetic contractors who wish to specialize.

Ideally Suited to Pullman Kitchen Units

DISTRIBUTORS (Choice exclusive territory for responsible distributors still available.)

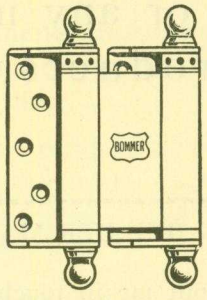
Write for complete information now

REDYBORD, Inc.

28 So. Wells St. **Chicago, Ill.**

Bommer

Spring Hinges



are the best to use

Millions and Millions

of People are Pushing

Them

whenever they open a door

Follow the line of least resistance

Use Bommer Always

They are the best

Bommer Spring Hinge Co., Brooklyn, N. Y.

Big Work Ahead?—

Perhaps Our Service Can Help You

HAVE you heard about the latest American Builder service now offered to builders absolutely without charge?

It puts you in touch with leading manufacturers of building material, equipment and supplies whenever you want to know about the latest developments or any information as to products, prices or deliveries.

You may need a hoist, a derrick, a crane, pumps, trucks, tractors, concrete mixers, woodworkers, electric hand saws, unloaders, scaffolding or a steam shovel.

We have left a space below for you to describe any important jobs you have in prospect where you might use better equipment to reduce costs. Be sure and fill this in—it may be the most profitable thing you ever did.

AMERICAN BUILDER MARKETING SERVICE, 1901 Prairie Ave., Chicago, Ill. (3)

Gentlemen:

Please put me in touch with all interested manufacturers in regard to the following items for which I am in the market or expect to be in the market shortly: (state exactly what you want—prices, literature, nearest point of distribution, etc., as well as the nature of the material required).

.....

.....

.....

.....

Describe any important job you have in prospect or contracted for where labor-saving contractors' equipment might reduce your costs—

.....

.....

Name.....

Street and Number.....

City.....

State.....

Please check your occupation: Building Contractor ☐ Dealer in Building Materials ☐
Prospective Home Builder ☐ Architect ☐

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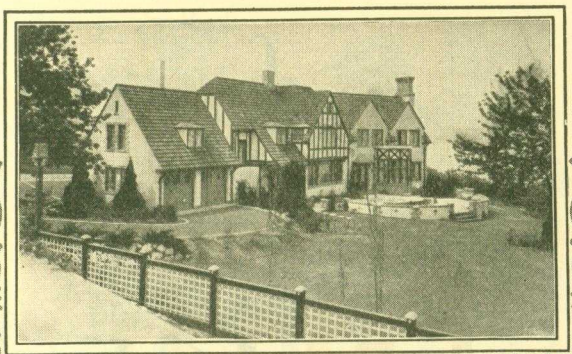
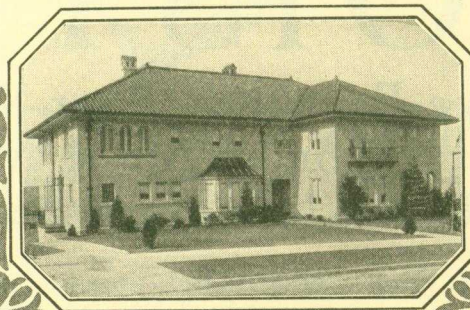


OAK FLOORS

beautify these homes



The texture and pattern of "Perfection" Brand Oak flooring make possible a finish that is seldom found on any other flooring.

You can depend upon "Perfection". In two modern plants operated by skilled lumbermen, only the finest oak is selected. After proper seasoning and kiln-drying, it is perfectly milled and matched so that it lays smooth and stays smooth. It is graded and handled so carefully that upon arrival anywhere, it is always in perfect condition. Leading lumber dealers gladly feature this nationally advertised brand.

ARKANSAS OAK FLOORING CO., PINE BLUFF, ARK.

"PERFECTION"

BRAND-OAK FLOORING

Specify "PERFECTION" BRAND OAK FLOORING — ARKANSAS OAK FLOORING COMPANY — PINE BLUFF, ARK.

There's a size and grade for every structure, new or old. Write today for full particulars.

New! Series 61 Casement Stay

Another Win-Dor triumph!

This casement device gives a new convenience to the women—and one that they appreciate.

Win-Dor positive-automatic locking. One hand operation, short reach. Rattle-proof, rust-proof, solid brass channel. New beauty.

Endorsed and supplied by leading steel casement manufacturers. Also applicable to all outswung wood casements. This is just one of a number of valuable casement improvements shown in our new 1928 catalogue.

Write for a copy today.

Win-Dor

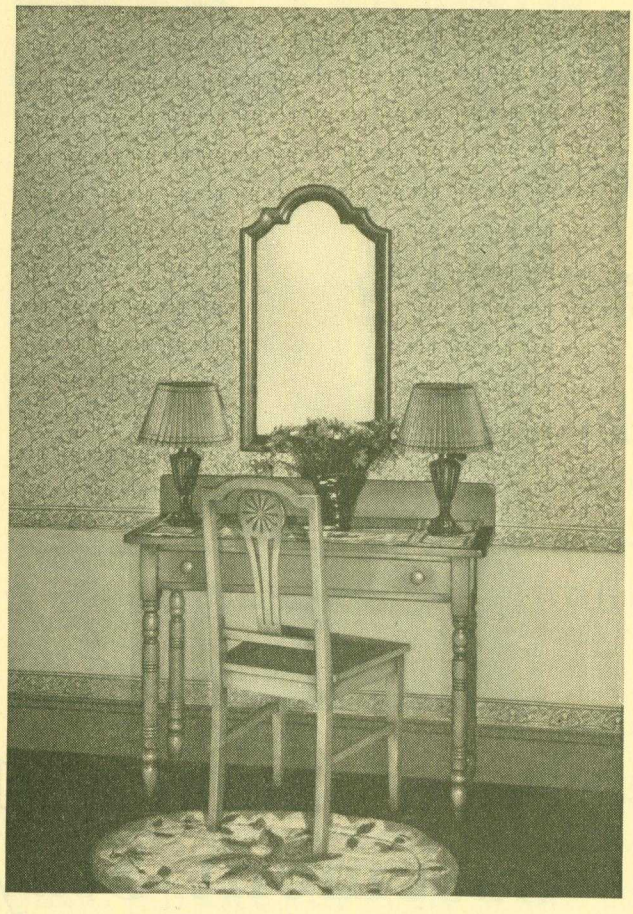
CASEMENT HARDWARE

The Casement Hardware Co.

402-A North Wood Street, Chicago

CASEMENT HARDWARE HEADQUARTERS

Win-Dor — Pat. U.S. & For. Countries



Cracks can't mar the handsome walls of this bedroom

A PROMINENT interior decorator combines beauty and economy in the walls of this smart bedroom. Beauty, because the wall-covering is Wall-Tex No. 3092, a restful flowered pattern in pink and gray. Economy, because Wall-Tex is a strong, wear-resisting fabric that hides cracks in old plaster and keeps new plaster from cracking. And after months of wear, if it should become soiled, it can be wiped clean with a damp cloth.

The 1928 Wall-Tex line is one we are proud of. Many handsome new patterns have been added to cover the entire field of decorative requirements. For living-room, dining-room, bedroom and nursery, as well as kitchen and bath. Dull or glossy finishes. Plain whites for painting and stenciling, rough-cast plastering, or Tiffany finishes. All hung just like wallpaper.

Architects, builders, decorators should write for full information on their particular needs. The Columbus-Union Oilcloth Company, Columbus, Ohio.

WALL-TEX
PERMANENT WALL-COVERING

With the name that's easy to say and hard to forget

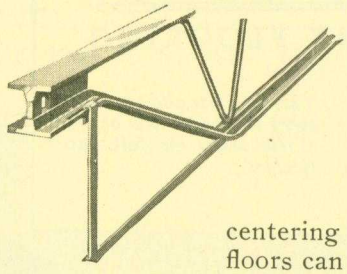
Genfire
FIRESAFE BUILDING PRODUCTS

T-Bar JOISTS

Have Features That Will Enable You to Make More Speed and Money on the Job!

Straight and true to line, accurately fabricated, each Genfire T-Bar Joist reaches the job ready for placing. No fitting—no fussing. Genfire T-Bar Joists are designed and built to enable you to speed up your work and save money.

The end construction of the Genfire T-Bar Joist showing great rigidity of its design and ample bearing, also the method of attaching furring bar for lath.



The continuous T-Bars which form the top and bottom chords provide added strength and safety. The underslung design and the wide end bearings prevent overturning of the joist during construction. The open web permits the passage of pipes and conduits in any direction. No centering is required. Many floors can be installed at one time. The joists serve as working platforms for the various trades. For all-round satisfaction, use Genfire T-Bar Joists.

Estimates and literature on request

GENFIRE STEEL COMPANY
YOUNGSTOWN, OHIO

Manufacturers of a Complete Line of Firesafe Building Products, also Waterproofings, and Concrete Preservatives

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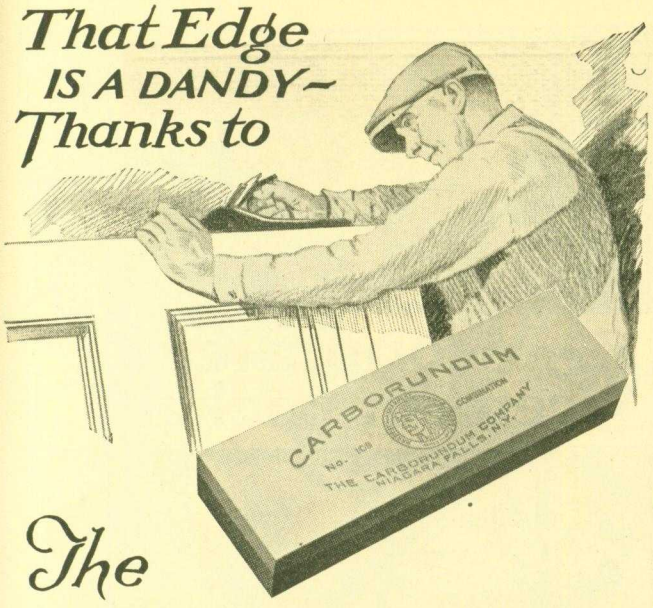
That Edge IS A DANDY— Thanks to



The

CARBORUNDUM COMBINATION STONE

A GOOD workman always has good tools. And a good tool deserves a keen edge.

Today, thousands of carpenters are using this handy helper to put clean, fast-cutting edges on chisels, plane bits, scraper knives - on all the edge tools in their kits.

They know that any edge tool is only as good as its edge.

Take out the nicks on the coarse-grit side of this "combination" or "double duty" stone—then just a few strokes on the fine-grit side will finish off your tool to a true, keen edge.

Made of Carborundum—the manufactured abrasive—much harder, sharper, and faster cutting than any other material.

Order from your Hardware Dealer

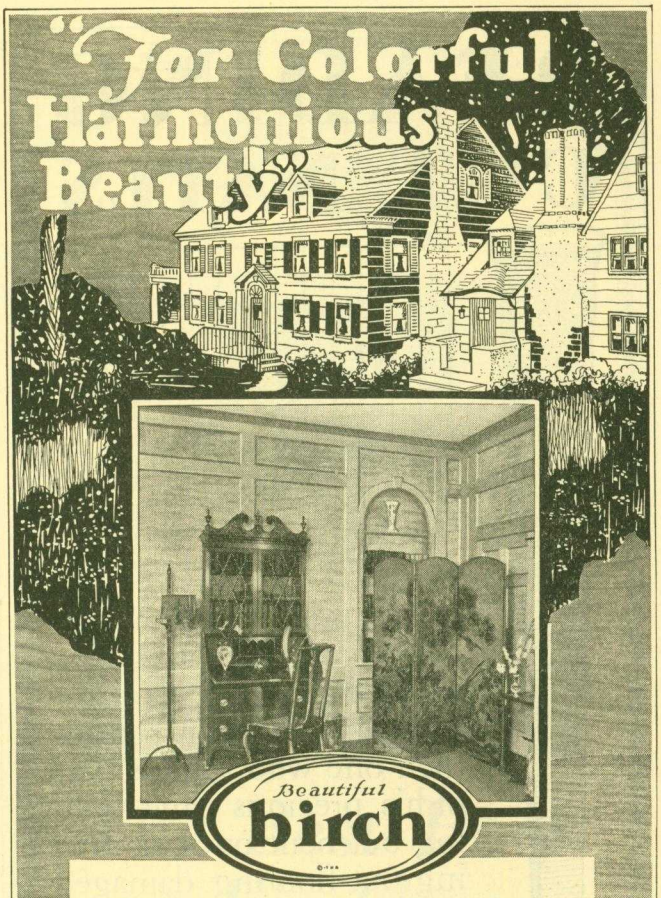
Send for Booklet "How To Sharpen Woodworking Tools—C 2."

THE CARBORUNDUM COMPANY, NIAGARA FALLS, N. Y.
Canadian Carborundum Co., Ltd., Niagara Falls, Ont.

Carborundum is the Registered Trade Name used by The Carborundum Company for Silicon Carbide. This Trade Mark is the exclusive property of The Carborundum Company.

Carborundum
REG. U. S. PAT. OFF.
ABRASIVE PRODUCTS

"For Colorful Harmonious Beauty"



This birch paneled living room in the Dr. Shippen House, recreated by Good Housekeeping Studio for the Sesqui-Centennial Exposition, Philadelphia, conveys many valuable tips for the remodeling of interiors in this premier Northern Hardwood.

The Magic of Color *is building* Better Building Business

Every builder knows that fine appearance, both inside and out, is the visible evidence of value which favorably influences the prospective home-buyer and that also incites the enthusiastic praise of the owner in the final appraisal of the work of his building contractor.

For fine interior trim, doors, floors and veneer paneling. Wisconsin-Michigan birch, finished in the marvelous new stains, is "the last word" for colorful harmonious beauty.

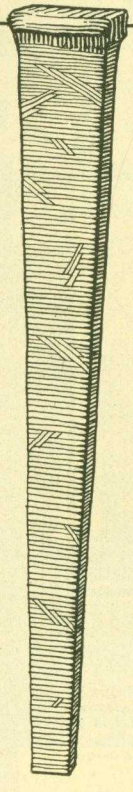
And, the wide range of shades and tones in which these transparent finishes are available—delicate sky blue to rich seal black—will satisfy the most ultra-modern or conservative taste in woodwork. Nearly "mar-proof" hardness is insurance that a birch interior will retain a fine appearance permanently.

Complete data regarding this new color development on birch will be cheerfully sent upon request, together with a copy of our "Beautiful Birch" booklet containing valuable tables giving Physical Properties of all American Hardwoods.

THE BIRCH MANUFACTURERS
201 F. R. A. Building, Oshkosh, Wis.

"Beautiful Birch for Beautiful Woodwork"

READING CUT NAILS



cut labor costs

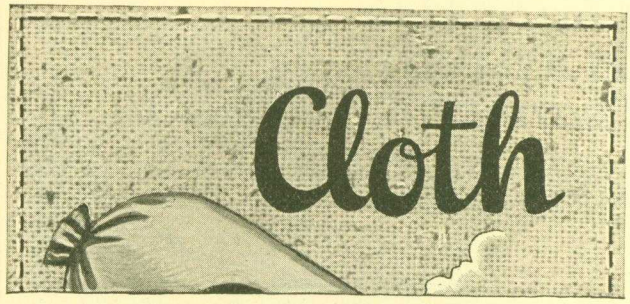
IT stands to reason that the carpenter who uses nails that drive straight and grip tight works faster then one who spends part of his precious time pulling out bent ones or sawing out flooring damaged by bent nails.

Reading *Hard Cut* Floor Nails go through hardwood flooring and into the subfloor or joists regardless of knots. No matter how hard you drive them the heads stay on, sinking firmly into the wood. You can always be sure of a neat job. True enough these nails cost a trifle more than the round wire ones but the few dollars extra you pay are offset three to five times in labor costs.

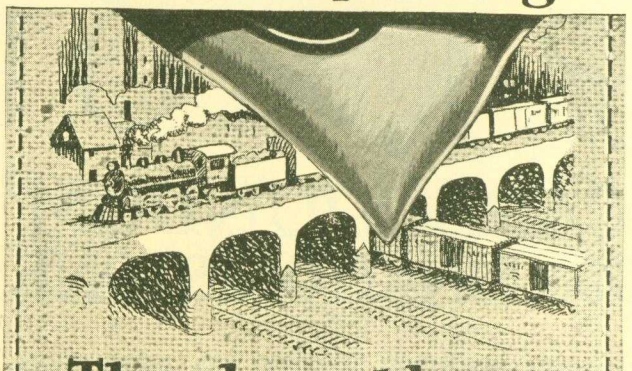
All sizes available. Send for quotations.

READING IRON COMPANY
Reading, Pa.

Cloth



the economical cement package



The shrewd buyer saves money on his cement purchases by specifying~~~ all deliveries in *returnable Cloth Sacks*~

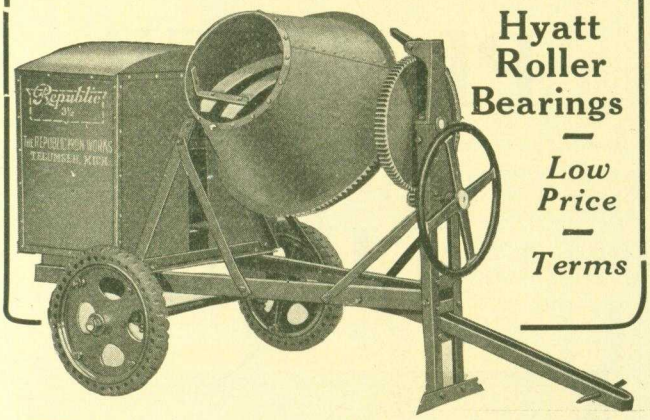
TEXTILE BAG

MANUFACTURERS ASSOCIATION
7310 WOODWARD AVE., DETROIT, MICH.

TEXTILE BAG MANUFACTURERS ASSOCIATION — CLOTH THE ECONOMICAL PACKAGE

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

America's Finest Built Mixers



Hyatt Roller Bearings — *Low Price* — *Terms*

Higher Quality-No Increase in Price

Hyatt roller bearings throughout, roller-drive chain, Dot high-pressure lubrication, malleable wheels, divided type mixing blades, automatic return—everything provided to make it the fastest, easiest operated, most durable mixer built.

3-3½-5 7 & 10 SIZES

Republic

Republic Concrete Mixers are built in all sizes from half bag up, in both tilting and non-tilting types.

Dealers carry complete stock for quick delivery.

Write for Catalog

REPUBLIC IRON WORKS, Tecumseh, Mich.

All the Products

Advertised in these pages can be recommended to

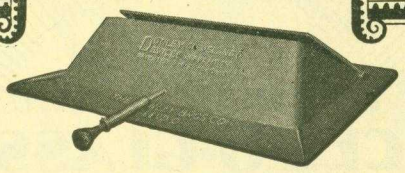
American Builder Readers

Dealings with these advertisers will prove to be highly profitable to you.

Be progressive and investigate what these important houses have to offer you.

If you are interested in any product that is not mentioned here, please write us. We will gladly put you in touch with the manufacturers best fitted to supply your needs.

American Builder
1827 Prairie Avenue, Chicago



The Best Book on Fireplaces

THE Donley Book of Successful Fireplaces is the most complete and comprehensive book on fireplace design and construction published today.

If you want fireplace designs to show customers—you'll find it contains 59 beautiful designs in photograph and drawing.

If internal fireplace construction bothers you—you will find plans and descriptions.

If you seek the cause of fireplace troubles such as smoking—the book describes fireplace evils and gives the remedy.

And if you want details and description of correct fireplace equipment, the book shows you why Donley Fireplace Equipment is naturally recognized as best.

This fireplace book is sent to you upon receipt of 25c to cover mailing cost.

The Donley Brothers Co.
13910 Miles Avenue • • Cleveland, Ohio

REG. U. S. PAT. OFFICE
DONLEY DEVICES
Complete the Home

Original *Genuine* CEL-O-GLASS admits more of the Sun's Ultra-Violet Rays

Science has proved the incalculable value of the Ultra-Violet rays for building health and vigor. CEL-O-GLASS brings these vital life-rays indoors.

WHEN you build, build for health. Whatever you build there is a need for CEL-O-GLASS.

This remarkable utility material has advantages found in no other product. It is unbreakable, light in weight, highly translucent, flexible, durable. Comes in rolls. Easy to use. Cut it to size with an ordinary pair of shears. Fasten it anywhere with hammer and tacks.

There are so many uses for CEL-O-GLASS that once you try it you will find many applications for it.

If your supply dealer does not carry genuine CEL-O-GLASS, write us for the name of one near you who does. Send for samples and interesting folder No. 60

ACETOL PRODUCTS, INC.
21 Spruce St., New York, N. Y.

© 1928, Acetol Products, Inc.

CEL-O-GLASS
REG. U.S. PAT. OFF.
WON'T BREAK
AN UNBREAKABLE TRANSLUCENT

PLASTERING IS 90% OF THE VISIBLE INTERIOR

PLASTER *with* LIME

90% of what you see—yet the cost of fine lime-plastered walls and ceilings is only about 10% of the total building appropriation.... Reason enough for you to specify Gibsonburg, Ohio's Super-Finish—snow-white, pure, easily worked, uniform—equally effective whether applied over wood or metal lath. Consult your Gibsonburg dealer.

Plaster is a word too often used in a broad sense. There are many kinds of plaster. Specify LIME plaster if you want an assured base for decorating or papering.

Gibsonburg Finishing Lime

THE GIBSONBURG LIME PRODUCTS CO., Gibsonburg, Ohio

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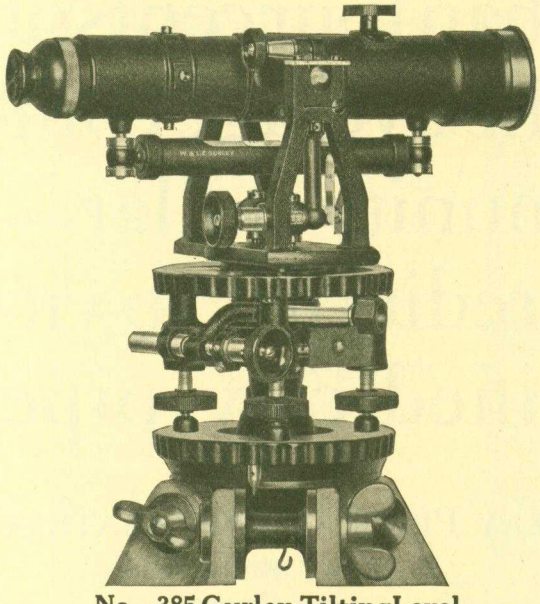
BATHROOM CSM Co ACCESSORIES

COLORED
PORCELAIN ENAMELED
SURFACE AND SEMI RECESS
BATHROOM
ACCESSORIES
MANUFACTURED BY
CENTRAL SPEC. MFG. Co
CHICAGO, ILL.
Write For Catalog

Simplicity, Economy and Accuracy

by use of the

Gurley Tilting Level



No. 385 Gurley Tilting Level
Send for Illustrated Bulletin

Any workman who can level with a carpenter's spirit level, can use the Gurley Tilting Level. By simply turning a slow motion screw, the bubble can be brought to the center before each reading.

"Line and Grade" can be given without removing the telescope from its bearings. The Tilting Level is thus instantly ready for either Transit or Level work.

The Gurley Tilting Level is made by the oldest American makers of fine instruments for Engineers and Surveyors, and brings the same instrument precision to Contractors and Builders in a simplified form.

W. & L. E. Gurley, Troy, N. Y.

W. & L. E. GURLEY
514 Fulton St.
TROY, N. Y.

Send me at once descriptive bulletin on the new Gurley Tilting Level.

Name.....

Address.....

Try one roll of SISALKRAFT

"More than a building paper"

YOU will find a dozen different uses on every job for this strong, waterproof, protective material.

Contractors who have tried Sisalkraft, the reenforced, waterproof paper, are enthusiastic about the protection which it affords and about its strength, its complete waterproofing, its cleanliness and permanence. Sisalkraft is so strong that it can be easily applied by one man without rips or tears or any of the grief experienced with ordinary paper products.

Sisalkraft is applied over the sheathing in place of building paper and provides a complete protection which cannot be obtained in any other way. Sisalkraft is waterproof, windproof and dustproof and yet costs no more in the job than ordinary building paper.

Besides its use over the sheathing like building paper, Sisalkraft can be used for protecting cement, lumber, face brick or other materials on the job, for floor linings, for application over the rafters under roof construction, for closing in, windbreaks and other temporary protection. After being used to cover materials or for other temporary purposes Sisalkraft can be rolled up and laid under the floors in permanent construction, thus cutting the costs.

Order a sample roll of Sisalkraft now and try it under actual working conditions. You will be amazed at its remarkable strength and other exclusive advantages. Order a sample roll from your dealer or direct from

THE SISALKRAFT CO.
228 N. La Salle St. Chicago, Ill.

AB5-Gray

Sewers take less than four cents of the average community dollar—credit that to vitrified clay pipe

CLAY PRODUCTS ASSOCIATION
CONWAY BUILDING
Chicago

VITRIFIED Salt Glazed CLAY
Sanitary Sewer Pipe

AB5—Gray

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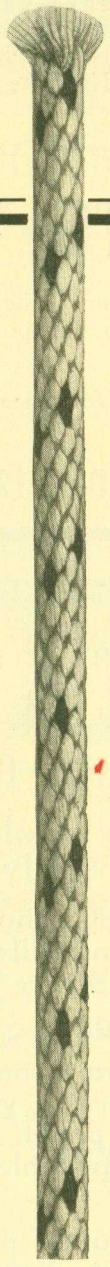
THE cost of rehanging a single window is often more than the difference in first cost between Samson Spot and the cheapest Sash Cord for an entire dwelling.



It pays you from the start

More durable; no window trouble to cause complaint and expense. No bad places to cause waste. No dropping down after installation to cause re-hanging.

SAMSON SPOT SASH CORD

is solid braided of extra quality cotton yarn spun in our own mills. It is guaranteed free from imperfection of braid or finish. Glazed, firm, round and true, pliable but tough, it is the most durable and economical material for hanging windows.

There IS a Difference in Sash Cord

Let us send you samples

TRADE MARK
Reg. U. S. Pat. Off.

Made by
SAMSON CORDAGE WORKS
88 BROAD STREET BOSTON, MASS.

No More Leaking Faucets is a Sales Message *For* You

Gone are the days of hissing, leaking faucets. Hays faucets are better made. Better materials, better workmanship, carefully machined parts. A Hays faucet lasts for years.

And besides Hays faucets are newly designed and have the latest ideas of convenience. Kitchen faucet has single swinging spout with Hays Safety Strainer, exclusive with Hays.

Basin faucets have soap dish and drinking glass receptacle. Finished either in nickel or the new chromium that will not tarnish, lasts forever and is so easy to keep clean.

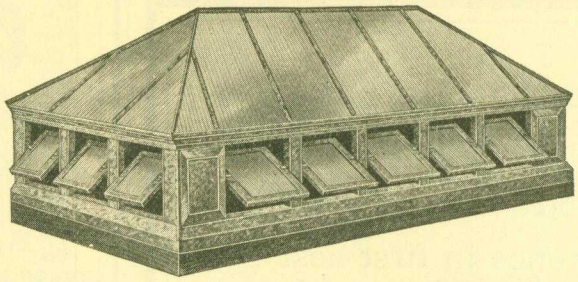
The foregoing paragraphs are being read this month by more than a million subscribers to Better Homes and Gardens and make Hays faucets a selling argument for you.

Send for illustrated folder showing our beautiful and durable faucets.

WHEN YOUR FAUCETS ARE MARKED
HAYS YOU CAN FIND NONE BETTER

THE HAYS MFG. CO., Liberty & 12th Sts., Erie, Pa.

HAYS FAUCETS



They're Right and Ready!

RIGHT in size and design. READY to install. No cutting and trimming to fit. No time lost. No excessive installation costs.

Contractors and carpenters are "for"

WILLIS SKYLIGHTS AND VENTILATORS

because they are never bothered with complaints or comebacks. That's due to our policy of making them to exact specifications.

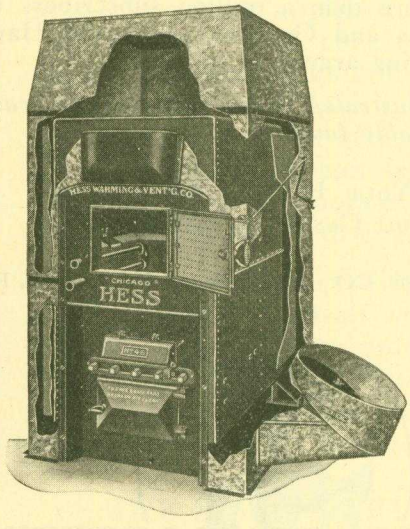
Write for Catalogue No. 8 to

Willis Manufacturing Co. Dept. 128 Galesburg, Ill.

HOME HEATING

has been our exclusive specialty for 55 years past.

Send us a sketch of your house, new or old, and let us show you how to heat it economically and thoroughly.



We will make a plan showing a heating arrangement we will guarantee, and will send you an estimate of cost, together with our 48 page booklet on furnace heating.

NO CHARGE — NO OBLIGATION.

We make our own furnaces and fittings, and sell direct from our factory to you, charging but ***one small profit— the factory profit.*** You can save money and get the best service possible by buying direct from the makers.

Ask your own banker to tell you of our finiancial responsibility. We sell on trial or on easy payments.

Don't fail to get our plans and prices.

HESS WARMING & VENTILATING COMPANY
1220 South Western Avenue, Chicago, Illinois
BRANCHES AT; DETROIT CINCINNATI MILWAUKEE

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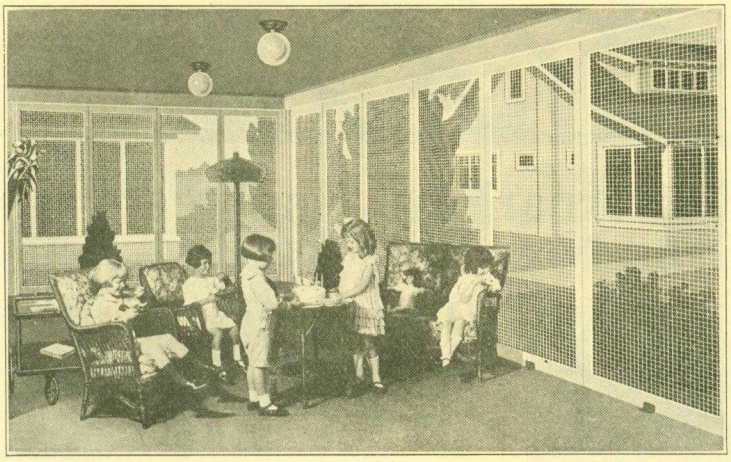
Screen with PEARL



Screen with PEARL

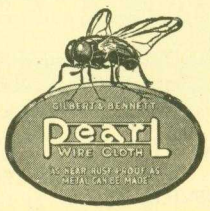
EVERY OPEN PORCH A PROSPECT FOR *YOU* NOW!

SCREENED Porches are money makers for you right now. Many right in your neighborhood are in need of them. Recommend PEARL Wire Cloth, which lasts longer, does not bag or sag, requires no painting and insures against repairs. On the market for over 30 years. Permanently identified by 2 copper wires in the selvage. Write for a "PEARL" Carpenter's Pencil. Sent *FREE!*

We have a dealer in your town. See him or write us.
Address Dept. "A"

The Gilbert & Bennett Mfg. Co.
New York, Georgetown, Conn. Chicago, Kansas City

PEARL *is made in Regular Grade [12 x 13 Mesh] and 14, 16, 18, 20, 24 and 30 Mesh; also Extra Heavy Grade [14 Mesh only].*
The best hardware dealer in your city sells "PEARL".



The Gilbert & Bennett Mfg. Co.
Dept. "A", Box 760, Chicago, Ill.
Send without charge PORCH PLAN and samples of PEARL WIRE CLOTH.
Name.....
Street.....
City.....*State*.....

A REALLY HIGH GRADE MIXER AT AN AMAZINGLY LOW PRICE

The BOSS 3½ S TILTER LOW CHARGING TYPE

Just the right size. Big enough for an average foundation a day, yet small enough to be easily handled about the job or towed behind touring car or truck. Makes small jobs pay big profits. Quickly pays for itself in saving over hand labor costs. New low prices will amaze you. Investigate! Mail coupon now for details.

Mixes mortar as well as concrete. Mixing always in plain sight.

Specifications

Capacity based on crushed 1½ inch stone in aggregate, dry 5 cu. ft., wet 3½ cu. ft. Average daily 30 to 40 cu. yards. 29 x 27 inch bowl with 19 inch opening. Loading heighth 40 inches. Frame 4 in. steel, 14 x 3 in. steel wheels or 24 x 3 rubber tire. Alemite lubrication.

Adopted by Contractors in U. S. and Foreign Countries.

U. S. Govt. [100]; Clough, Bourne Corp., N. Y. [40]; Tokio Elec. Bureau, Japan [80]; Cameron, Joyce & Co., Iowa [25]; Stone & Webster, Mass. [13]; State Highway Departments of Illinois, Iowa, Missouri, Massachusetts, Pennsylvania, Michigan, Montana, Kansas, Georgia and other states.

Gear Driven—Gear Dump! The Boss 3½ S Tilter is a marvel of fast, easy operation. With it two men can turn out as much work as six men using old-fashioned, back-breaking methods. Equipped with 5 second "Easy Dump" arrangement. High speed mixing action. Batch mixed 60 times a minute—produces more uniform aggregate. Water gaps make blade and bowl self cleaning.

Full 1 Year Guarantee! BOSS Mixers are noted for their long life. They are built almost entirely of steel and forgings. Materials and workmanship guaranteed for 1 year. The 3½ S Tilter is driven by powerful 2 H. P. motor requiring the minimum of gasoline a day.

Investigate! Before you decide on what mixer to get, send for full particulars. Note the unusually low prices. Compare the superior quality. The complete line of BOSS Mixers and Hoists is backed by 17 years of manufacturing experience and is endorsed by over 17,500 users.

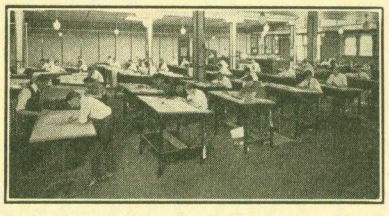
CLIP AND MAIL THIS COUPON NOW

AMERICAN CEMENT MACHINE COMPANY
217 S. Fourth St. Keokuk, Iowa

Please send me complete details and prices on the BOSS 3½ S Tilter

Name.....
Address.....
City.....State.....

Let the International Engineers Help You Land New Building Contracts!



The above photo shows one section of the International Engineering Department. Here, in the hands of experienced draughtsmen, your plans are drawn and estimates compiled. Beyond, huge piles of steel and modern fabricating machinery await your orders for quick delivery. Please notice the International products listed below.

THERE'S no better time of the year to go after building contracts than right now! And if you are really serious about landing the "better pay" building contracts, call upon our International Engineers for help. Here's how it is done:

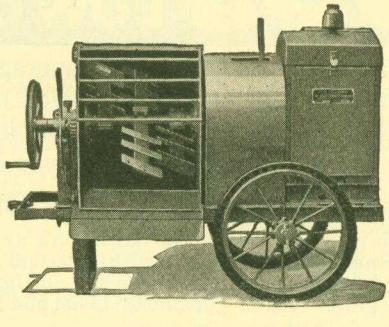
Dig up your prospects. Advise with them on the size and kind of structure best suited to their needs. Then—if any amount of steel is to be used—send to us for our specifications data sheet. Fill it out, return it with your instructions. We will draw plans and submit estimates which you can use in "landing" the contract.

Hundreds of reliable contractors are using International plans to their ultimate profit and satisfaction. International Service is now used in every state in the Union. Send your problems to us, and write *today* for our catalog.

PRODUCTS of INTERNATIONAL
Store Fronts - Steel Columns
Steel Ceilings - Skylights
Steel Windows
Steel Girders - Steel Trusses

INTERNATIONAL STEEL & IRON COMPANY
DEPARTMENT 18
EVANSVILLE INDIANA

PRODUCTS of INTERNATIONAL
Sidewalk Lights - Coal Chutes
Public Garages - Roof Ventilators
Airplane Hangars
—and many more listed in our Catalog!



KNICKERBOCKER Plaster Mixers

Specially designed for plaster and also successfully handle mortar, stucco and structolite.

Drum takes one-bag batch of gypsum plaster mix. Dumps into barrows or boxes and tilts to opposite side to be flushed out. Drum locks in mixing position and in discharge position.

Grid on drum top for resting material sacks. Overall size allows handling machine on standard 5' 6" material elevator.

This mixer is a cost-cutter on plaster work—ask for No. 4 Plaster Mixer Circular.

The Knickerbocker Company, Jackson, Mich.

Manufacturers Also of Concrete and Mortar Mixers and Saw Rigs

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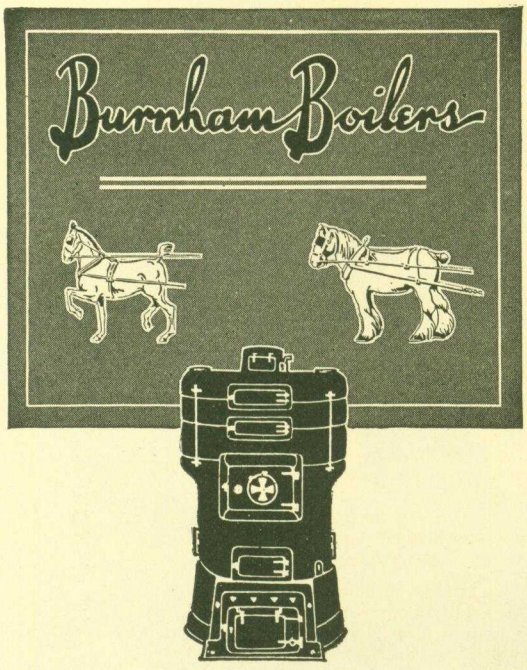


Just Hitch On Another Section As the Load Grows Heavier

IF you've planned the house you're building with an eye to adding on more rooms later, plan the boiler that way too.

With a Burnham Round Boiler, suitable for an average residence or business building, you add one complete lap of fire travel every time you add a section at the top.

More fire travel means more heat absorbing area, and so more heat. It's a known ratio.

Put in the Burnham that satisfies present heating needs. To enlarge it is the work of a few minutes for any average workman.

And the new section will pull sturdily, from the word go.

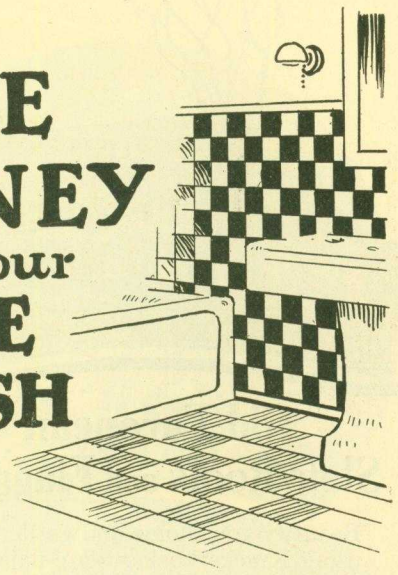
Send for Catalog 67, including Burnham boilers, fittings and supplies.

Burnham Boiler Corporation

Irvington, New York

Representatives in all principal cities of the United States and Canada

SAVE MONEY on Your TILE FINISH / *use*



BOARDTILE

an improvement—not a substitute

Gibbs Boardtile is not only easier and quicker to install, but it

Costs Less—
Looks Better—
Wears Longer—
Holds Color Indefinitely

There's real money for contractors and builders in Boardtile, for a professional job can be done by any carpenter with glue or nails. There's real satisfaction for your customers, for the beauty of the finish is permanent, and the saving is great.

GIBBS BOARDTILE CORP.
344-50 N. Ogden Ave. Chicago, Ill.

Use the Coupon for convenience

GIBBS BOARDILE CORP.
344-50 N. Ogden Ave., Chicago, Ill.

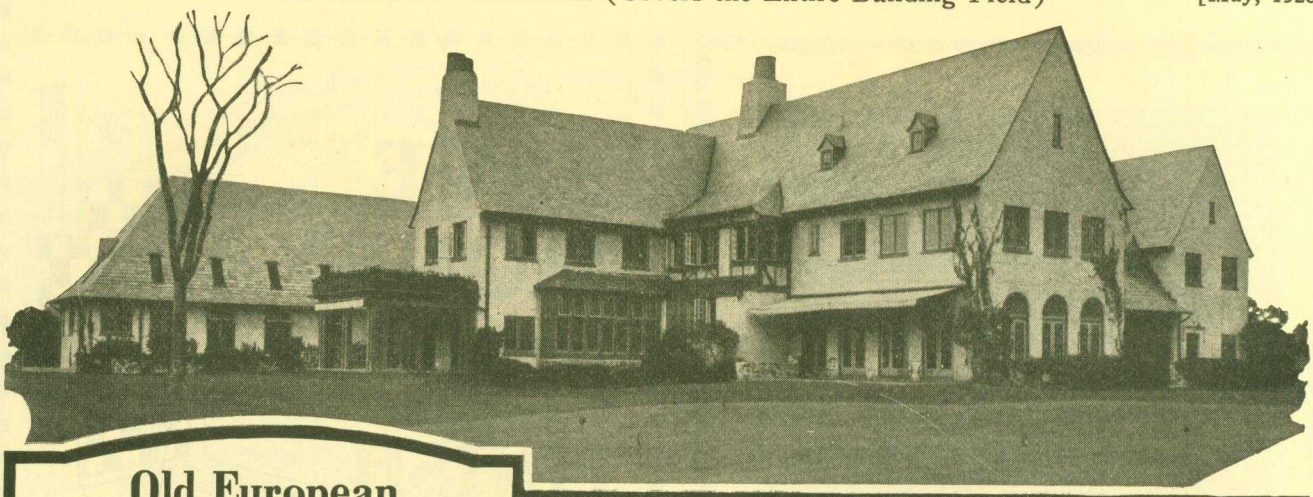
Without obligation please send us sample and complete information regarding the profit possibilities of Boardtile.

Name.....

Address.....

City and State.....

☐ *Architect* ☐ *Builder* ☐ *Dealer*

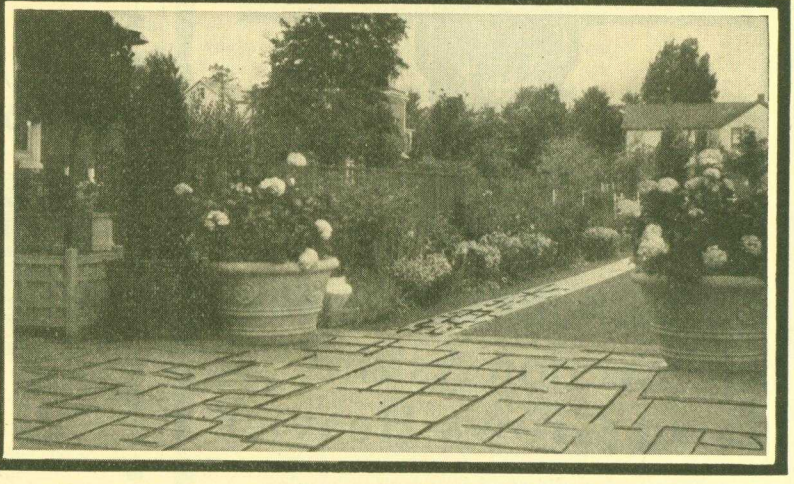


Old European Slate Roofs and Flagging

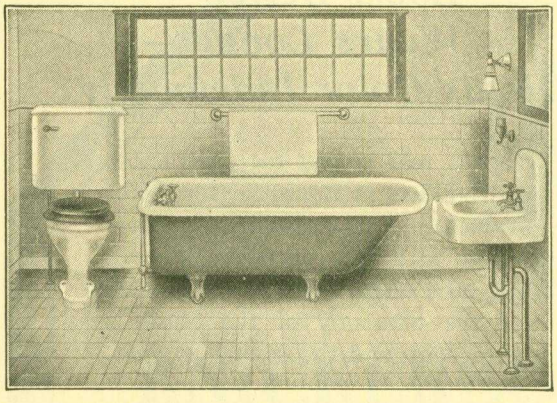
Beautify your home and garden by using Knickerbocker Slate flagging in the veranda and garden walks. Exactly the same old slate roofs of Europe with their rich colorings and strong natural texture may be had by the use of Knickerbocker Slate.

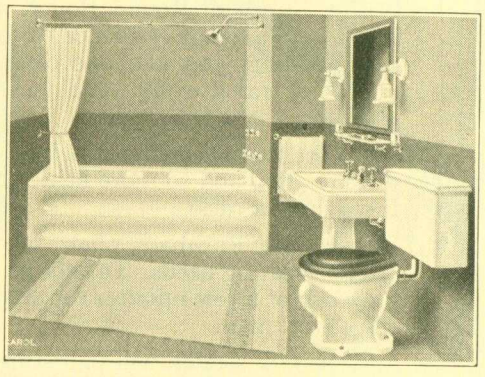
Roof and slate flagging suggestions upon request

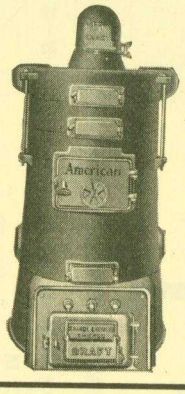
Knickerbocker Slate Corp.
E. J. JOHNSON, President
355 W. 26th St., New York



Representative Bargains from Our New Catalog on Quality Plumbing & Heating Material







The Jewell An inexpensive high grade outfit of latest style that carries the stamp of perfection, priced very low at..... **$55**

Bath Tub and Lavatory are cast iron, heavy porcelained and fully equipped. Tub lengths to 5 ft. same price, 26 or 30 in. wide. Closet has deep seal syphon action wash-down bowl.

The Peerless Beautiful Complete **$102**

Highest type of Bathroom. Fixtures are solid and massive. Tub, Closet and Lavatory, heavily enameled inside and out. Closet is deep seal syphon action, wash-down type with jet. Solid porcelain tank. Shower equipment shown $11 extra.

WHOLESALE PRICES
on the best plumbing and heating supplies. Everything GUARANTEED, or we refund your money. Only high class goods sold.
Prices Always Lowest
CATALOG FREE

Hot Water Heating Plant Complete For 6 Rooms
and bath with 900 ft. Boiler and 275 ft. Radiation of your own choice for only..... **$275**
Larger systems equally as low. Send your plans for estimate — **No Charge.**

YOU CAN ALWAYS SAVE MONEY AT KAROL'S
and be assured of the best quality of goods and fast service. We carry a big stock and can make immediate shipment. Try us!
ESTIMATES FREE

B. Karol & Sons Co., 800-10 So. Kedzie Avenue, CHICAGO, U. S. A.

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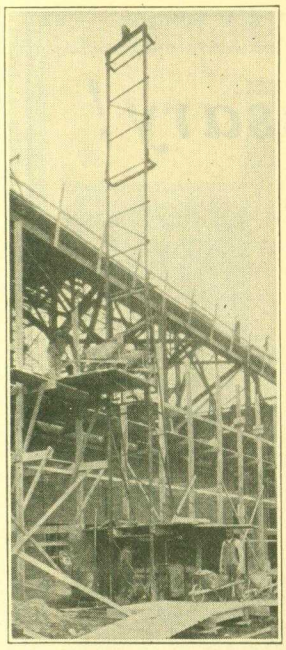


This Elevator is in practical use on the Stadium of Butler College of Indianapolis, Indiana. We have a good many in use all over the country.

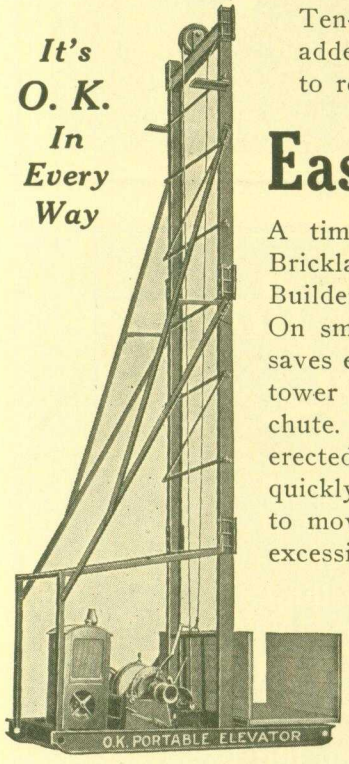
The O-K PORTABLE ELEVATOR

Here is a portable elevator especially designed for hoisting materials in wheelbarrows or concrete buggies. All steel construction, electric welded. Equipped with a single drum O. K. Hoist and 8 or 12 h. p. Gasoline Engine.

Height Changed AT WILL

Ten-foot sections can be added to the O. K. Hoists to reach any desired height.

It's O. K. In Every Way



Easy to Move

A time and labor saver for Bricklayers, Plasterers and all Builders for hoisting materials. On small buildings the O. K. saves expense of erecting hoist tower for elevator or concrete chute. Sections are easily erected to necessary height and quickly dismantled when ready to move. No lumber loss—no excessive labor expense.

We also manufacture a complete line of gasoline and electric hoists in all capacities, also portable air compressors. Check coupon below for the O. K. catalog.

O. K. CLUTCH AND MACHINERY CO.
COLUMBIA, PA.

O. K. CLUTCH & MACHINERY CO.,
Columbia, Pa.

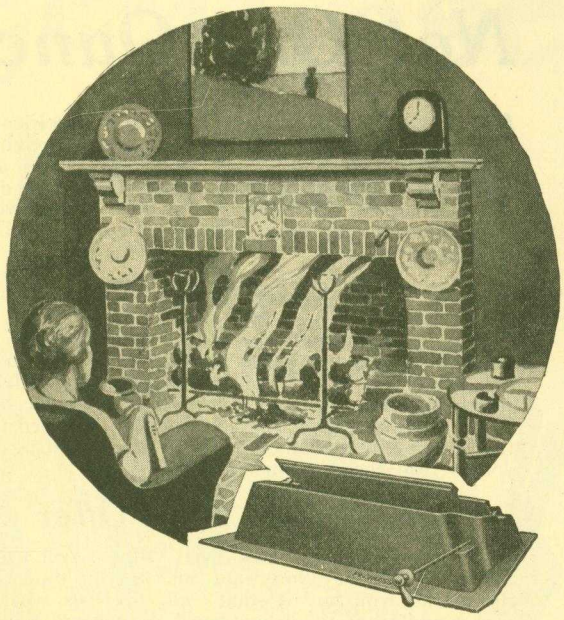
Please send your latest catalogs of equipment as checked.

☐ PORTABLE ELEVATORS ☐ HOISTS ☐ PORTABLE AIR COMPRESSORS

Name.....

Address.....

City.....State.....



Peerless Fireplace Dampers

"As Important in the Home as the Furnace and the Windows"

"WHY SHOULD A FIREPLACE HAVE A DAMPER?"

Every fireplace should be equipped with a Dome Damper for the following reasons:

1. To insure a perfect draft while operating a fire.
2. To eliminate, by closing the damper door, a tremendous loss of heat and unhealthy drafts when the fireplace is idle.
3. To eliminate the necessity of closing the flue with paper and rags in summer time, and also to shut off completely dirt, rain, soot, and insects which so often come through the chimney opening, both in summer and winter when the fireplace is not in use.

A Peerless Dome Damper, scientifically designed, provides the correct throat opening and insures against a smoky fireplace. The easily regulated damper leaf or door at the top of the dome permits perfect draft control, and regulates ventilation whether there is a fire in the grate or not. It also prevents soot from falling or being blown into the room when the fireplace is not in use.

A Complete Line of Building Specialties

PEERLESS MFG. CO.,
324 W. Main St., 5-28
Louisville, Ky.

Kindly Check
☐ Contractor ☐ Architect
☐ Home Owner ☐ Dealer

I am interested in Peerless Dome Dampers and other Building Specialties. Please send me complete information.

Name.....

Address.....

Town....., State.....

Not One Ounce Is Unnecessary!

THE Improved Schlueter is a full size Floor Surfacer, yet there is not an ounce of unnecessary weight. We make a portable, flexible shaft sander for stairs and small jobs, but it takes the weight, power and stamina found only in a full size machine to "eat" away the surface of hardwood floors hour after hour all day long. Use the Improved Schlueter on your next surfacing job.

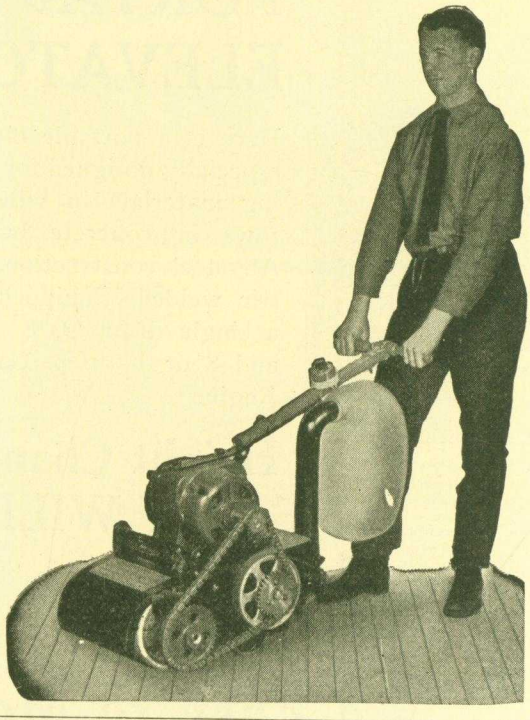
Said With Facts!

This is the Schlueter—Steel Roller *adjust itself* to floor irregularities; no levers, no weights; surfaces right up to quarter-round; link belt chain drive; Baldwin Motor (especially built for surfacing machines—will not burn out); powerful suction—no dust at all; Absolute Five Year Guarantee. No need to tell you why the Improved Schlueter is a better surfacing machine after you've read these Schlueter Facts!

Free Trial Offer

No obligation to our Free Trial Offer. You use the Improved Schlueter any way you want, and if you think it's the best on the market you buy it—that's all. Tell us what kind of work you would want to do and we'll recommend the right size (the Schlueter is built in four sizes) for you. Write today.

LINCOLN-SCHLUETER
FLOOR-MACHINERY CO., INC.
222 W. Grand Ave. Chicago, Ill.



"I like Long Leaf Yellow Pine flooring better than any other"—

Said a prominent New York City architect recently when discussing wood floors. His reasons included: Beauty of its natural rich color—varied finishes possible, its resistance to wear, and freedom from shrinking or swelling.

E. E. JACKSON FLOORING

Invariably provides these specific values developed to the highest degree through the quality of its original growth Long Leaf timber, correctly seasoned strips and accurate manufacture featuring in particular Edge Grain Flooring in

END-MATCHED AND PLAIN END

Our 1 x 3 flooring is manufactured 13/16 x 2½ face, giving the user a substantial saving over 25/32 x 2⅜ face also counted 1 x 3.

E. E. JACKSON LUMBER COMPANY
Sales Office: Citizens Bank Bldg., Baltimore, Md. • Plant: Riderwood, Ala.

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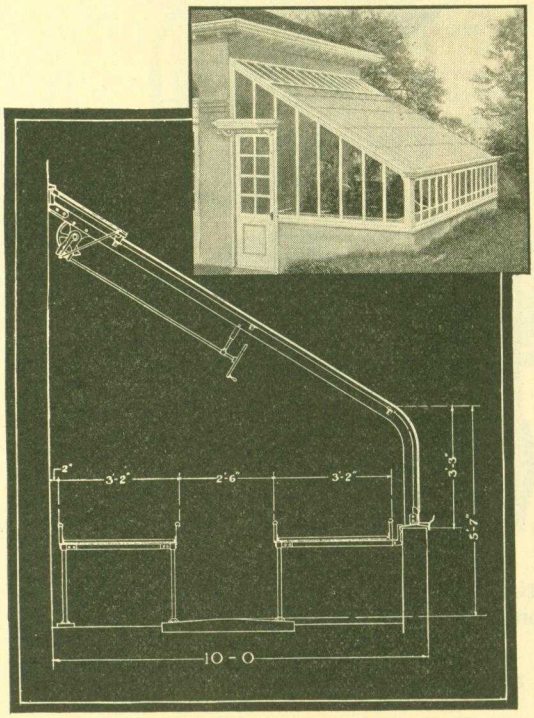

Complete Plans and Specifications with Every Hitchings Sunshine Room

YOU don't have any guessing to do, when you put up a Hitchings Sunshine Room.
The metal frame is all cut to measure, all holes are punched or drilled, all bolts are ready for the holes.
Every wooden part is cut to fit, so far as possible.
Every part is located on the plans we furnish.
The specifications are clear.
You know just what you are getting and what to do with it.
You can fit in your Hitchings Sunshine Room as easily as you set in a refrigerator or the boiler.
Not a hitch with any average workmen.
Builders tell us these Sunshine Rooms are worth twice what they cost, as a selling proposition.

Send in the coupon and get the facts and figures.
See for yourself.

Hitchings and Company

General Offices and Factory:
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101 Park Avenue

Oak Lane, Philadelphia
6709 North Broad Street

Wilkes-Barre
402 Coal Exchange Bldg.

Boston
161 Massachusetts Ave.

Albany, N. Y.
100 State Street

(Please print plainly—Name and Address)

Send me full facts about your Sunshine Room.

*Name*_____

*Address*_____

Get These Booklets

and a free Sample of

KUHLS

ELASTIC GLAZING COMPOSITION

Find out for yourself the superior qualities of this perfect glazing composition.

UNEQUALLED

for bedding and glazing sash, skylights, conservatories and glass construction work, tile settting, etc. May also be used for pointing stone or terra cotta work. Is ideal for calking window frames on new work as well as old.

Kuhls' composition is elastic, never sets hard, adheres strongly to wood, metal, glass, concrete, etc., and never cracks nor crumbles. Stands heat and cold and is not affected by moisture, nor changing weather. Beds perfectly and makes an absolutely tight joint under all conditions. Keeps out the driving storms.

Kuhls' Elastic Glazing Composition can be economically and efficiently used in all construction work—from a four-room cottage to a 25-story building. It is now used by the best builders, contractors, architects and greenhouse builders in the country.

Write today for your free sample, prices and booklets. Or go to your dealer. See our list of distributors in October, 1927, American Builder for your nearest dealer.

H. B. FRED KUHLS

6415-21 Third Avenue, Brooklyn, N. Y.

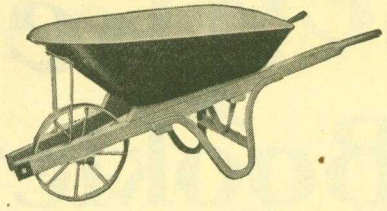
H. B. FRED KUHLS,
6415-21 Third Ave.,
Brooklyn, N. Y.

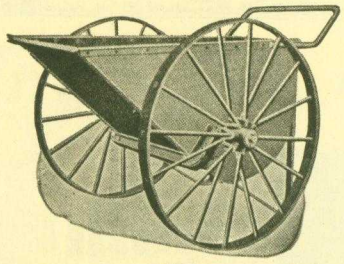
Please send me free of charge your literature and a sample of KUHLS' Elastic Glazing Composition.

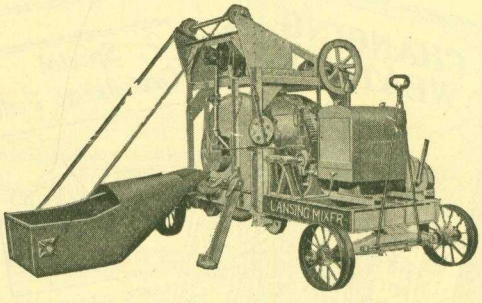
Name.....

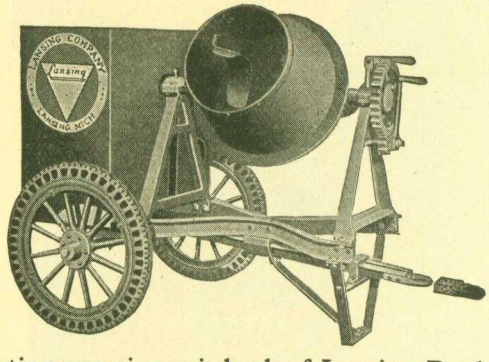
Street.....

City.....State.....









Nearly half a century of manufacturing and distributing experience is back of Lansing Products. Buyers of Lansing equipment are assured of prompt shipment, efficient repair service and low freight rates. Send for our General Catalog.

"There is a Lansing Dealer in your vicinity"

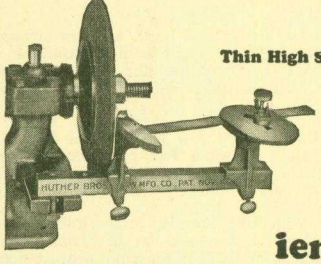
LANSING - COMPANY

Factory: LANSING, MICHIGAN

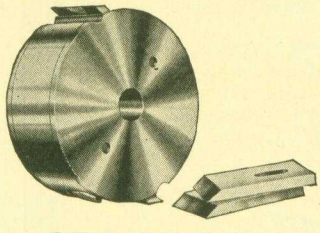
Branches: Boston, Kansas City, Minneapolis, Chicago, New York, Philadelphia

There's more profit in a HUTHER SAW

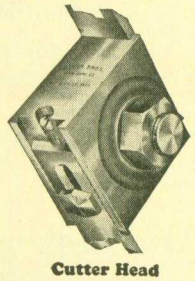
Thin High Speed Steel Knives



Grinding Attachment

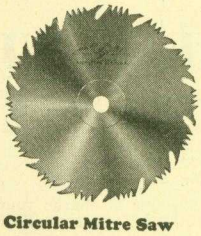


Cylinder Cutter Head

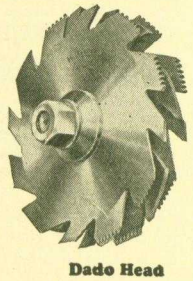


Cutter Head

Backed by fifty years experience in the making of highest grade saws, each Huther Saw has a quality built into it that insures maximum length of service.



Circular Mitre Saw with Cleaner Tooth



Dado Head

Huther Bros. Saw Mfg. Co.

ROCHESTER, N. Y.

Makers of Better Saws for More Than Fifty Years

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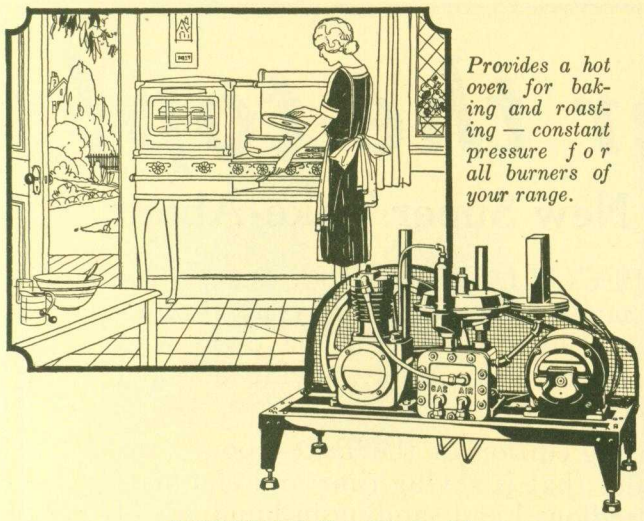


Provides a hot oven for baking and roasting — constant pressure for all burners of your range.

BURN GAS

Cheap, Clean Fuel, No Matter Where You Build

Now you can include gas in your home plans, no matter where your lot is.

GAS-O-MATIC makes you independent of gas mains. Gives you all the gas you want, for every household purpose—and it costs no more than city users pay.

No special connections or other equipment. Works with all standard gas ranges, auxiliary and hot water heaters. Efficient. Reliable.

Mail coupon for descriptive literature, statements by satisfied users and details of easy purchase plan.

GAS-O-MATIC time payment plan makes ownership easy. Mail coupon for detailed information.

GAS-O-MATIC

Enjoy the Convenience of Gas in Your Home—Any Time—Anywhere

GAS-O-MATIC CORPORATION
Dept. B, 500 Fassett St.,
TOLEDO, OHIO

Gentlemen: I am interested in GAS-O-MATIC for my home———. I am interested in dealership———.

*Name*_____

*Street Address*_____

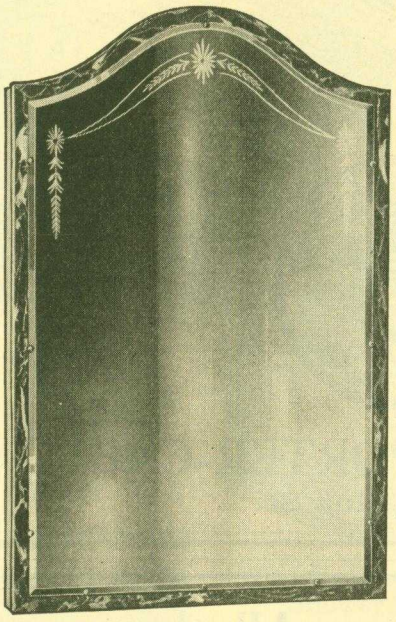
*Post Office*_____

NEW Design..... Construction Attractiveness

New Miami Cabinets

TEN years ahead in every way . . . and their installation will stamp you as being ahead of competition . . . Prices are reasonable. Installation is simple. Results are all in your favor.

"The Renaissance"



A NEW 1928 model . . . with door covering entire front of cabinet when closed so that the appearance is that of a mirror flush with the wall. 18x28″ Venetian mirror, mounted on steel door panel, finished in black and gold marble. Delicately beautiful design. Etched in gold and silver.

Breakage in transit is overcome by the original door construction — with the following ingenious features:

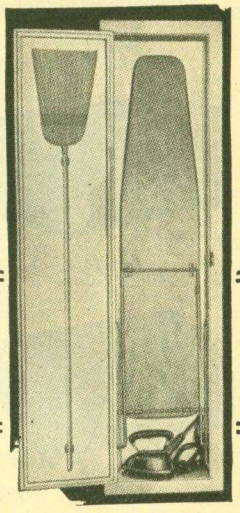
1 *Mirror gripped by attractive clips . . . no holes . . . therefore no sacrifice of strength in mirror.*

2 *Door is air-cushioned to absorb shocks of slamming.*

3 *Full length piano hinge.*

No hardware visible . . . body finished in the famous Crystal Snow . . . cabinet equipped with used razor blade drop . . . same high grade construction and finish as the other Miami Products.

Write TODAY for details on this and other 1928 models . . . Ask for Catalog No. 7.



Miami Laundry Queen Ironing Board Cabinet

The very thing for increasing convenience and efficiency in your kitchen.

THE MIAMI CABINET CO.
Middletown, Ohio

THE MIAMI CABINET CO., Middletown, Ohio.
Please send me full particulars about MIAMI CABINETS.

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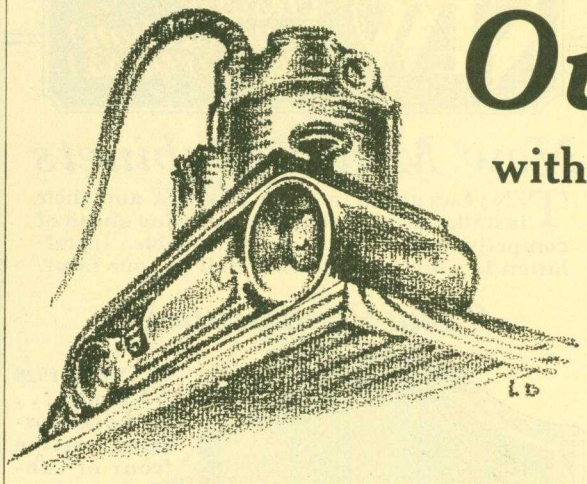
Address.....

City.....



Over the top!

with the New Super Take-About

SPECIALLY designed for heavy duty sanding, speeding up your production. Entire floors can be done with the Super Take-About, giving a Super Smooth finish.

A big edition of the Take-About—the sander that is saving time and eliminating tedious hand sanding in hundreds of shops. Rugged but easy to handle.

Like its big brother of war time this little tank of industry, the Super Take-About, fights production cost.

Write us for complete literature showing the many uses and applications for this portable belt sander.

1917

Special features

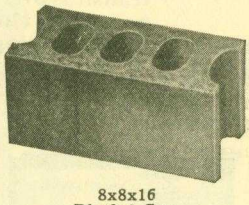
New type 1 h.p. G. E. Motor.

Wide belt (4-inch).

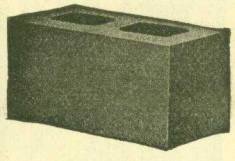
Special construction makes the Super Take-About a portable production sander.

PORTER-CABLE MACHINE COMPANY

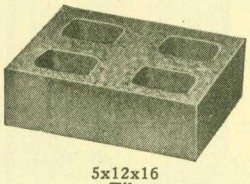
1721 N. Salina St. **Syracuse, N. Y.**



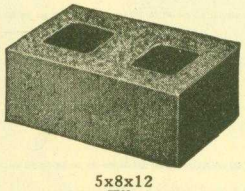
8x8x16
Block 3-Core



8x8x16
Block 2-Core



5x12x16
Tile



5x8x12
Tile

All these concrete masonry units made on one machine—

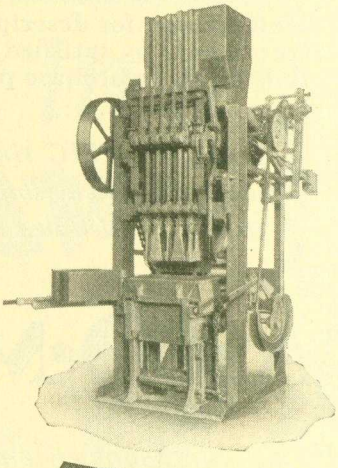
IDEAL TRADE MARK REG. U.S. PAT. OFF.

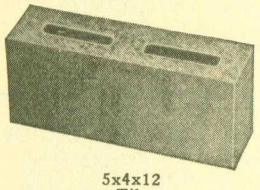
Self-Contained Vertical Power Stripper

Here is the newest thing in power machinery for the rapid and economical manufacture of concrete block and tile. It is entirely self-contained—when it arrives at your plant you skid it into place, hook on a belt and you're ready to start operations. A power feeder that works automatically, power tampers that cut labor cost and insure a uniformly dense product. Only one clutch on the whole outfit and that one has a light job.

For the builder who is interested in establishing a concrete products plant with not too great an investment but whose trade requires a variety of sizes and types of masonry units, this outfit will be especially valuable.

Write for the Ideal catalog describing hand and power block, brick and tile machines, mixers and ornamental molds.





5x4x12
Tile

This stripper also makes blocks 8x 10x16 and 8x12x16 and tile 5x6x8.

IDEAL
CONCRETE MACHINERY
TRADE MARK IDEAL REG. U.S. PAT. OFF.

DIVISION OF
CONSOLIDATED CONCRETE MACHINERY., ADRIAN, MICH.

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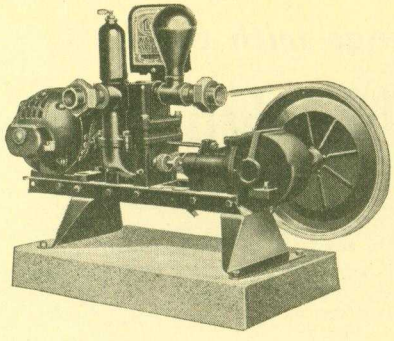


Get a

Electric Pump

. . . *and*

you've *got* something!

It's a pump that is always dependable... always on the job. The longer you use it, the more you will marvel at the way it does its work. There's a model to match the pumping job you have to do. All DP pumps perform equally well on central station current or current from a Delco-Light electric plant. And all are available on General Motors easy terms. Send for new illustrated booklets that describe the full line of DP Water Systems. Mail the coupon now—today.

DELCO-LIGHT COMPANY
Subsidiary of General Motors Corporation
Dept. R-115, Dayton, Ohio

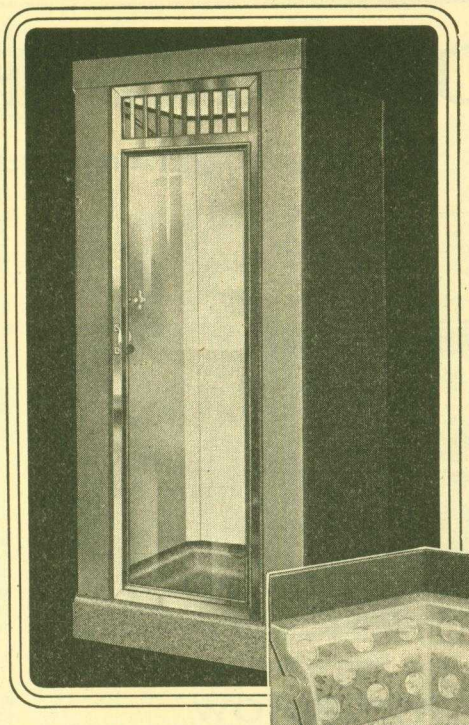
Dependable Electric Water Systems

Also Manufacturers of Delco-Light Electric Plants for Suburban Homes and Farms

DELCO-LIGHT COMPANY
Dept. R-115, Dayton, Ohio
Send complete information about new DP Water Systems for Building Contractors.

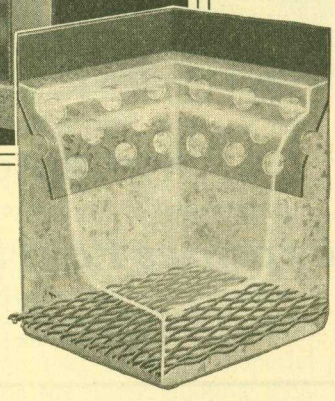
Name.....

Address.....



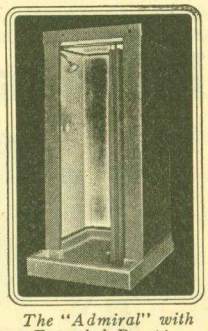
The "Admiral" with Vitreous Enamel Finish, Terrazzo Receptor and "Nautilus" Glass Door.

Corner section, Fiat Receptor. Integral with Compartment. Leakproof Construction. (Patent applied for)

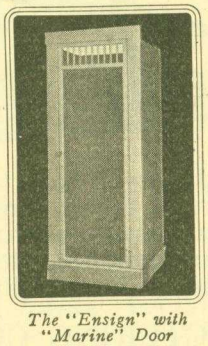


Fiat

Shower Bath Compartments



The "Admiral" with Extended Receptor



The "Ensign" with "Marine" Door

The Greatest Progress in Shower Enclosures

Meet the public demand for showers by installing FIAT Shower Bath Compartments—the last word in bathing facilities. Because the FIAT Enclosure is a complete unit within itself it "rides" the building—stays permanently leakproof under all conditions.

The Popular Bath Made Practical

Ideal for new or old buildings. No tearing up floors—no mixing mortar—only one trade involved—complete installation by plumber. Strictly sanitary—no spoiled decorations. Thousands in use.

Doubles the Bathing Facilities of the Home

For very little expense, every home owner or home builder can double his bathing facilities by specifying and installing a FIAT Compartment. Readily installed in minimum space. Made in 7 models, same construction throughout, with different finishes. All reasonably priced.

Mail the Coupon for Catalog

Learn about the additional good points of FIAT Shower Bath Compartments by sending the coupon for a copy of a 32-page attractively illustrated catalog.

FIAT METAL MFG. CO.
1201 Roscoe St., Chicago, Ill.

FIAT METAL MANUFACTURING CO.
1201 Roscoe St., Chicago, Ill.

Please send me full information regarding Fiat Shower Bath Compartments.

Name.....

Street.....

City.....State.....

Please check—I am a Contractor ☐, Plumber ☐, Architect ☐, Dealer ☐, Realtor ☐, Home Owner ☐

DOLLARS FROM DIRT!

Washing Houses and Buildings with the

Washing Stucco

WRITE NOW

for proposition telling how you can have your

Expenses Paid to Detroit

and see for yourself how the Nielco Lightning Washer operates, and how it will make profits for you.

NIELCO *Lightning* Washer

(PATENTS PENDING)

The only machine on the market to wash houses, buildings or in fact any painted surface, tile terra cotta, glazed brick and stucco.

Do you know that 90% of the houses painted each year are painted because they are dirty and NOT because they need paint?

When a house needs paint,—to wash it the NIELCO Way saves paint and money.

Every home owner is interested.

$20 A DAY!

is easily made with one machine and two ordinary laborers because as much work can be done in five minutes as is done with ordinary hand methods in an hour.

NIELCO Cleaning Compound used exclusively with the Lightning Washer assures you of uniformity in results and is GUARANTEED harmless to hands, clothing, paint, lawn or shrubbery.

EXCLUSIVE TERRITORY

is available to contractors and builders who can see the money making opportunity of this business under a liberal franchise that protcts you against competition. We help you get started, show you how to get business, how and where to advertise, how to make estimates, in fact tell you all the details of how we started here and the substantial profit made every day on every machine in operation.

NIELSEN INDUSTRIES, INC.

5419 CICOTTE AVENUE

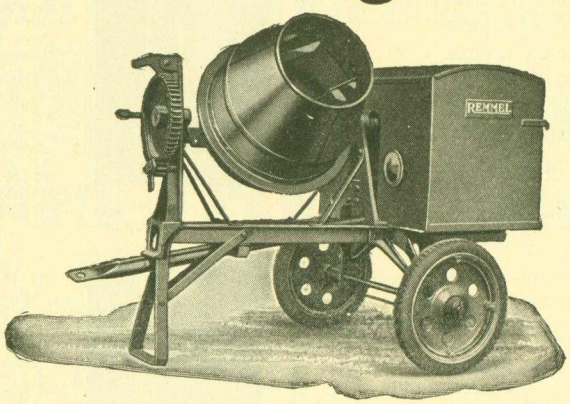
DETROIT :: MICHIGAN

Charge or Discharge on Either Side

This high speed

REMMEL TRAILER

is the one for you



Roller Bearing Wheels

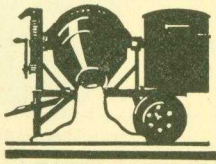
Timken Bearing Drive Shaft

and

Ball Thrust Bearing Drum Support

In this 3½-S Remmel Mixer you have the fast mixing Remmel Drum, the Remmel Direct Gear Drive and all-steel construction that takes a lot of hard handling without damaging the machine. Low loading height, simple tilting mechanism and positive lock that holds drum in any position. Furnished with solid or pneumatic rubber tires or steel wheels. You'll like our prices. Write right now.

REMMEL MANUFACTURING COMPANY, : Kewaskum, Wisconsin



Direct Drive Remmel Mixers

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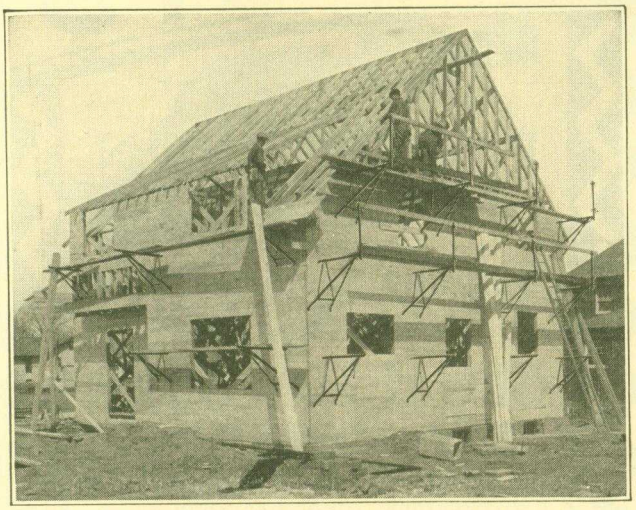
Everlasting Money Makers

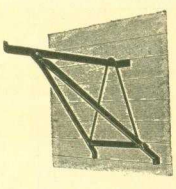


Trouble Saver Steel Brackets

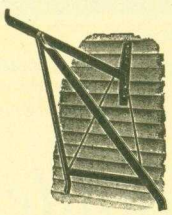
On the very first job you use them, **Trouble Savers** pay for themselves because they are put up and taken down so much faster than wood scaffolding.

And they go right on saving their cost on every job thereafter—they last a life time with no repair or replacement expense.

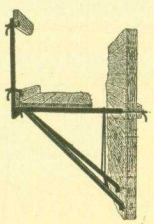
They are many times safer than wood and prevent costly accidents to men and material. They are **EVERLASTING MONEY MAKERS!**



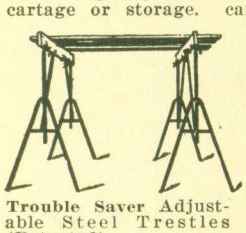
Trouble Saver Studding Brackets Support a ton. Will not bend. Hook around studding. Braced by two legs. Fold compactly for cartage or storage.



Trouble Saver Nail Attached Brackets Support a ton. Held by four nails and braced by two legs. Fold compactly for cartage or storage.



Trouble Saver Bolt Brackets Approved by State Industrial Commissions. Detachable rail standards. Held by ⅝" bolts. Fold for cartage or storage.



Trouble Saver Adjustable Steel Trestles (Patented). Quickly adjusted to desired heights. 8 sizes. Each size adjustable from 4 to 15 different heights, giving a range from 16 inches to 12 feet by 3 inch lifts. Save countless sets of wooden horses.

Trouble Saver Steel Products

Studding Brackets
Nail Attached Brackets
Bolt Brackets with Safety Railing
Adjustable Trestles
Ladder Jacks
Wood Shinglers
Asphalt Shinglers
Mortar Board Stands
Sectional Steel Scaffolding

THE STEEL SCAFFOLDING CO.

1101 Governor St., Evansville, Ind.

SPECIAL TRIAL OFFER

Please send us details on your 30-day free trial offer and full information and prices on **Trouble Savers.**

Name.....

Address.....

City.....State.....

Insulate This Easy Inexpensive Way With Gimco ROCK WOOL

When you insulate between floors, walls or in attics, remember that Gimco Rock Wool is the cheapest, easiest-handled, most efficient insulation you can use. It not only insulates against cold and heat, but also against Fire, water, vermin and Sound. Rock Wool is listed by the U. S. Bureau of Standards as the most efficient 100 percent fire-proof, chemically stable insulator known. Approximately 90 percent of its volume is Dead-Air space.

Gimco Rock Wool is produced by drawing molten silica rock into fine, long fibres, by a special process which also anneals the fibres, making them tough, elastic and waterproof. This silica rock is found only at one place—Alexandria, Ind., U. S. A.

A better insulator at a lower cost.

3 CONVENIENT FORMS

Gimco Rock Wool is available in three convenient forms to meet every need and requirement of installation—Loose; Felted (which we term Flexfelt) and Granulated Rock Wool.

1. **LOOSE ROCK WOOL**—Light, fluffy and easy to handle. Wonderfully adapted for insulating walls and attic floors in new homes or attic floors in old homes. Tucks in easily and quickly between joists or studding. Packed in handy 50-pound bags.

2. **FELTED ROCK WOOL (Flexfelt)**—Easy-handling, blanket-like form in varying thicknesses. Fabricated between metal lathe, providing stucco base when used on outside and plastering base when used on inside.

3. **GRANULATED ROCK WOOL**—Loose Rock Wool ground into uniformly small particles. Ideal for hard-to-get-at, inaccessible applications. Just open handy 50-pound bags and pour in where desired.

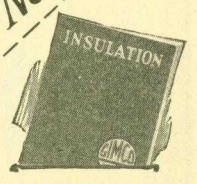
Ask your building supply dealer about Gimco Rock Wool. He can show you samples and quote you prices. If your dealer doesn't handle, write us direct.

Low Cost Will Surprise You!

A better insulator at a lower cost! Hard to believe, but it's a fact. Don't pay fancy prices for ordinary insulators when you can get Gimco Rock Wool at surprisingly low cost.

Get All the Facts—

Send To-day for New Book!

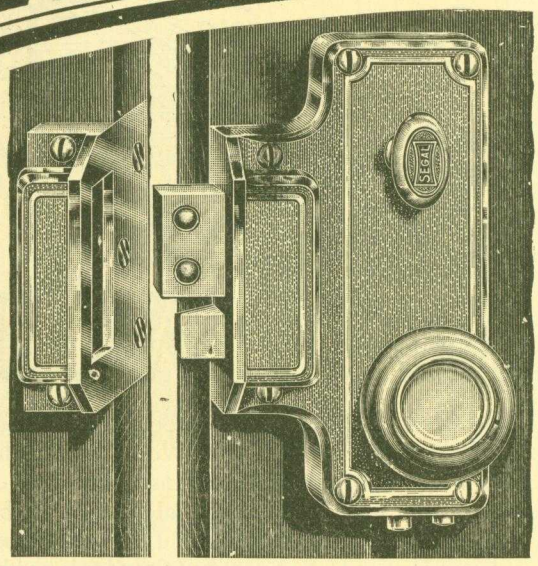


General Insulating and Mfg Co.
Alexandria, Indiana Send copy of free book on Rock Wool Insulation.

*Name*_____

*Address*_____

SEGAL FOR SAFETY



BURGLARY PREVENTION

is too important and the cost too insignificant to be skimped in

Building Specifications

Tenants Appreciate

SEGAL "JIMMY-PROOF" LOCKS

on doors. The Wise builder forestalls door mutilation by equipping his building with the Segalock. Absolutely Jimmy-Proof. Protects Millions.

Write for Catalog "AB"

SEGAL LOCK & HARDWARE CO., 159 Leonard St., New York

Makers of BURGLAR PROOF DOOR LOCKS, DUMB WAITER LOCKS and PADLOCKS

Segal Works Are Endorsed by Leading Burglary Insurance Co's. and Satisfied Users Everywhere

150 Pounds Pressure CRANE VALVES *2500 Pounds Pressure*

A tribute to American builders

One of the greatest and most eloquent tributes to the initiative and constructive imagination of the American builder can be seen in the suburbs of any large city: street on street of practical, pleasing, and honestly constructed houses.

Houses, in which the emphasis has been decidedly on permanent value rather than on passing novelty. Houses of sound materials, tight and tidy from dry cellar to dry roof.

For progressive builders have proved over and over again the sales power of nationally advertised, quality materials. They have seen the bride of a year, and the bride of ten years, both persuading husbands to choose the house with Crane plumbing and heating. All of which explains the ever increasing tendency of far-sighted builders to specify Crane fixtures, valves, and fittings—especially so, since they cost no more.

CRANE

Address all inquiries to Crane Co., Chicago

GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVENUE, CHICAGO

Branches and Sales Offices in One Hundred and Sixty-six Cities

National Exhibit Rooms: Chicago, New York, Atlantic City, San Francisco, and Montreal

Works: Chicago, Bridgeport, Birmingham, Chattanooga, Trenton; Montreal, and St. Johns, Quebec; Ipswich, England

CRANE EXPORT CORPORATION: NEW YORK, SAN FRANCISCO, MEXICO CITY, HAVANA

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CRANE-BENNETT, LTD., LONDON

CIE CRANE: PARIS, BRUSSELS

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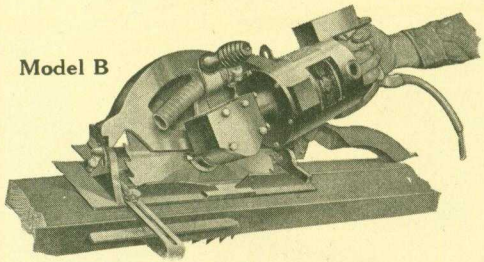
Bevel and Mitre Cuts For Rafters

Model B

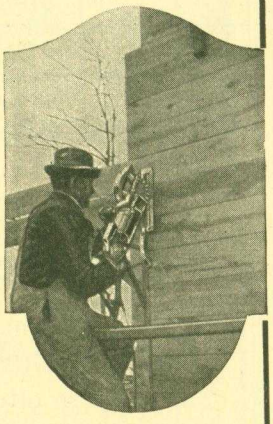


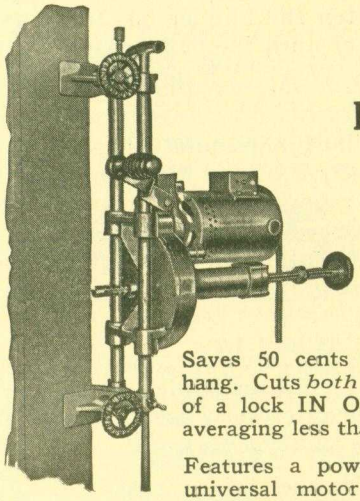
WODACK SAWS

The Wodack Electric Hand Saw is the *most complete* saw on the market. Has tilting base for bevel cuts to 60°. Will saw up to 4⅛" on a straight cut. The 11" diameter blade allows for bevel cuts which no other saw can make, such as a 45° angle on 3" lumber and 30° on 2" material. Also equipped with special Rip Gauge, ¾ h.p. G. E. Universal motor for A. C. and D. C. 9" blade also furnished.

Model C has no tilting base for bevel cuts but saws up to 4⅛" lumber and only weighs 24 pounds. Same powerful motor and equipment as Model B and costs $18.00 less. All Wodacks have perfect Safety Guard and special Sawdust Blower. Easy to see the work.

Photo at right shows practicability for lightest work where portability is necessary.





Combination Lock Mortiser and Router

2 Tools in 1

Saves 50 cents on every door you hang. Cuts *both* face plate and barrel of a lock IN ONE OPERATION, averaging less than a minute per door.

Features a powerful ½ h.p. G. E. universal motor that can be REMOVED from the mortiser to convert to the Wodack ROUTER. This outfit is sold separately or in combination.

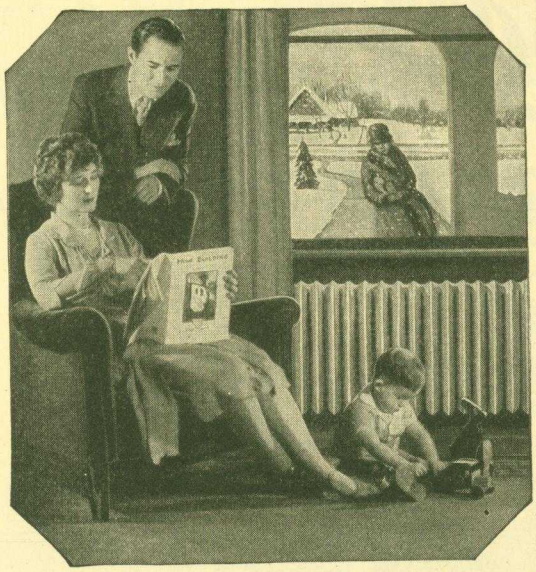
F. L. ROGERS & CO.

23 S. Jefferson Street
CHICAGO, ILL.

Also carried in stock at New York Branch

Nationally sold. Write for name of nearest demonstrator.

Build the Home Around the Heating Plant!



THRUSH SYSTEM

---will help you sell any home!

FACTS:

Uncontrolled heating fluctuates wildly because the home owner cannot, or will not give the proper attention to firing.

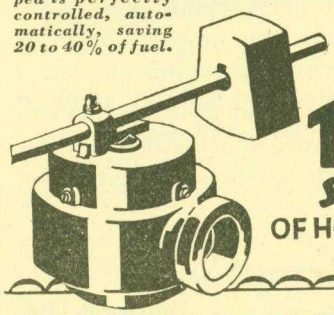
Uncontrolled heating not only wastes fuel, but endangers health as well. Hot Air or Steam Heating is less desirable than Hot Water for homes, because extremes of temperature and dry air conditions are produced which are difficult to control and are unhealthy.

Hot Water Heating, Thrush Equipped is perfectly controlled, automatically, saving 20 to 40% of fuel.

WHETHER you're building new homes or modernizing old ones, Thrush System for regulating and improving the efficiency of hot water heating plants will be a real sales tool for you. It makes a closed and automatically controlled heating plant from any gravity hot water job, giving increased circulation and reduced fuel consumption.

It is recognized as the best form of heating for residences because it provides all the mild, healthful qualities of hot water heating plus distinct economies of operation and increased comfort and convenience.

It maintains that mild summery warmth, without extreme fluctuations of temperature, regardless of weather conditions. It costs little to install it on old or new plants. Mail the coupon now for more information.



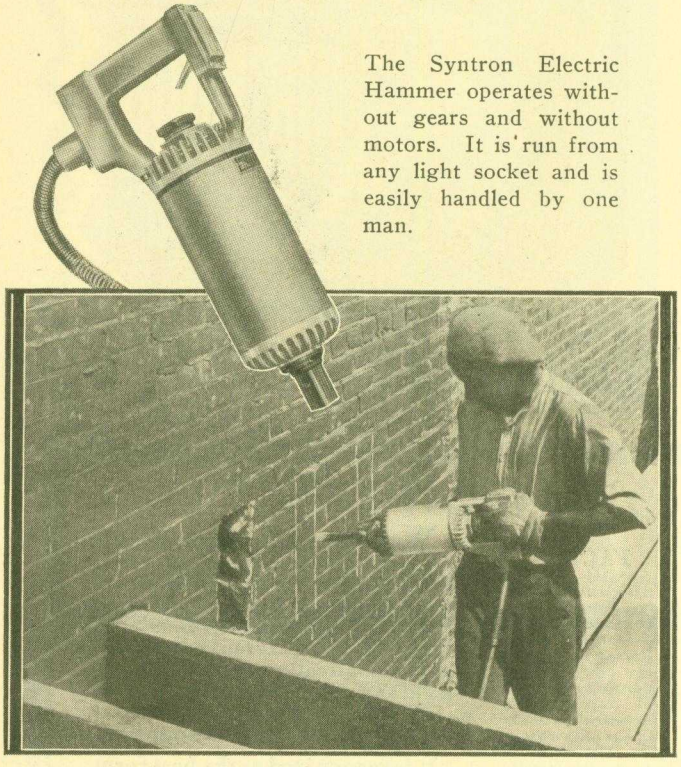
Specify THRUSH SYSTEM OF HOT WATER HEATING

MAIL THIS COUPON!

H. A. Thrush & Co., Dept. B.
Peru, Indiana
Send me your booklet, "Which Heating Plant for My Home?" without obligation, of course

Name _____
Address _____
Business _____

Saved! $572.00 and 8 days on this one job!



The Syntron Electric Hammer operates without gears and without motors. It is run from any light socket and is easily handled by one man.

This laborer with a Syntron Hammer cut 67 Joist Holes in a shale brick wall in one day. Average, 55 per day, saving $572 and 8 days' time.

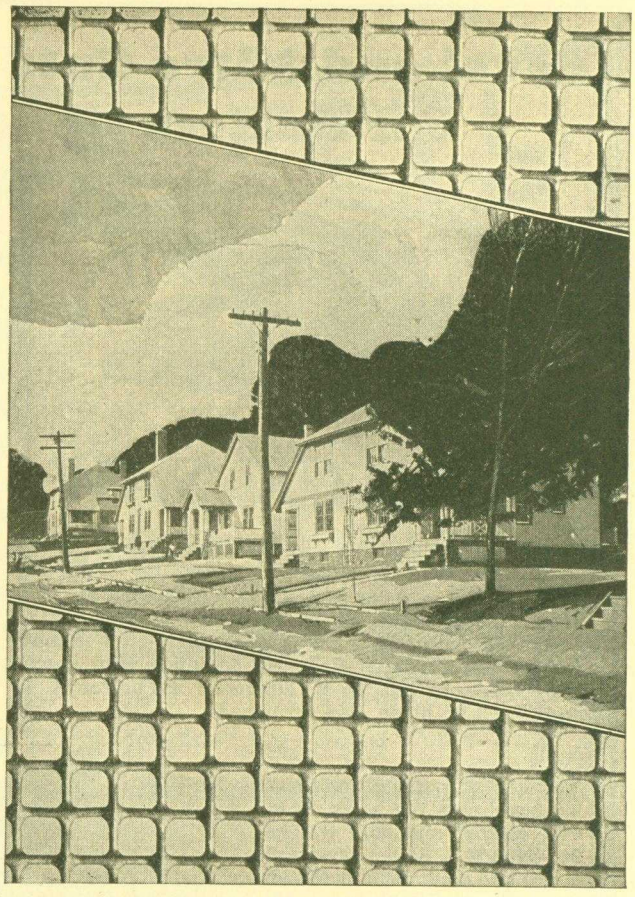
It is common experience for a Syntron Electric Hammer to pay for itself a dozen times over on a single job. So rapidly does it work—3600 steady, even, powerful blows a minute—that drilling, chipping or channeling through masonry, brick or stone is accomplished in one-tenth the time of the ordinary way, and at a corresponding saving in cost.

Why not get all the facts about Syntron. Write at once for complete literature illustrating and describing this modern utility. Ask for Bulletin No. A-5.

The Syntron Co.
Dept. A-5 400 Lexington Ave., Pittsburgh, Pa.

SYNTRON

Motorless Electric Hammer



You can't sell Cracked Walls

THE very nature of speculative building demand an optimist.

But every so often the builder has to carry a house or two over until the next season. This is when Clinton Wire Lath proves its worth to him.

The double key both horizontal and vertical is provided irrespective of the direction used in troweling plaster or stucco. The finely tempered steel of which Clinton Wire Lath is woven makes a re-enforcement that practically eliminates cracking. And the cost is within reason.

Whether you are the architect, the builder or just the man that lends the money on the mortgage, it is to your interest to use Clinton Wire Lath for you *can't sell cracked walls!*

Let us send you further information.

WICKWIRE SPENCER STEEL CO.
49 East 42nd Street, New York
208 South LaSalle Street, Chicago, Ill.

WICKWIRE SPENCER STEEL CO.

CLINTON WIRE LATH

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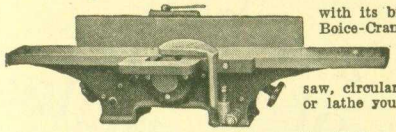
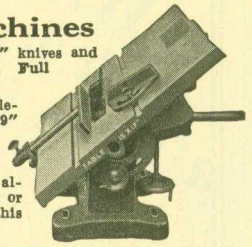
Why Buy a Big Machine—



with its big first cost and upkeep when a Boice-Crane Bench machine will do the job accurately and speedily at a fraction of the cost? Whether you want a band saw, circular saw, jointer, mortiser, jig saw, or lathe you'll find it listed among

Boice-Crane Bench Machines



Jointer shown cuts all kinds of mouldings. Has 4½" knives and table length of 36". Safety head and safety guard. Full ball-bearing. Easily operated by ¼ h.p. motor.

Universal Handisaw shown has table 15"x17". Elevates for grooving—tilts 45° for bevelling. Swings 9" saw, cuts 2½" stock. Insert takes dado head 6"x1", cope heads and 8" sand disc. Also has insert providing opening for 2" jointer head. Jointer attachment fits on right of table. Guides always remain parallel to saw regardless of elevation or tilt of table. No other saw of equal cost has this feature.

All Boice machines operate from light socket. Sold with or without motor. Send for illustrated catalog showing complete line of Boice-Crane Bench Machines. Send today!

W. B. & J. E. BOICE, Dept. A. B. 5-D, Toledo, Ohio

HEY ALWAYS HOLD

Mitered Joints are the best Joints

Clamp Nails make them so.

Guaranteed Everlasting Mitered Joints

DURABLE-DEPENDABLE-ECONOMICAL

Ask us for samples.

CLAMP NAIL CO.
4540 PALMER ST.
CHICAGO, ILLINOIS

750 LBS

CLAMP
TRADE MARK
NAILS
COPY'RD 1927 BY CLAMP NAIL CO

COPPER FLY WIRE!
LESS THAN WHOLESALE PRICES!

Retailers, Builders, Apartment, Hotel and Home Owners—Summer will soon be here! *NOW* while prices are low is the time to buy your screen wire. Our wire is 99.8% pure copper. Heavier than any other wire made. 3½ to 5 lbs. more per roll.

14 mesh, 4c 16 mesh, 5c 18 mesh, 6c

per square foot in 100 lineal foot rolls. Widths 18" to 48" every two even inches.

CUT PIECES

14 mesh copper...5c per sq. ft. 16 mesh bronze...5½c per sq. ft.
16 mesh copper...5½c per sq. ft. 18 mesh copper...6½c per sq. ft.

We have in stock all sizes of wire in the above meshes.

BRONZE WIRE

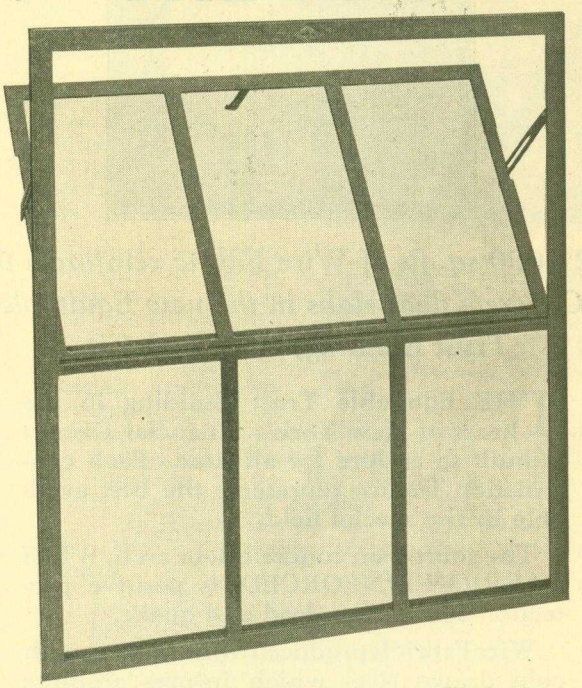
16 mesh, **5c** per square foot in 100 lineal foot rolls. Widths, 24", 26", 28", 30", 32", 34", 36".

We can send cut pieces of wire parcel post. Mail in your list for quotations and save money. Special prices to users who buy 10 rolls or more at one time.

Above Prices F. O. B. Philadelphia

PAUL J. DEVITT
2nd & Washington Ave. Philadelphia, Pa.

Vento
PUTTYLESS STEEL SASH
Cuts Costs
INCREASES THE VALUE



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No Putty Required in "Vento" Utility Steel Window

For Warehouse—Store—Shop—Factory—Bakery—Creamery

The only puttyless steel window that has ventilator bottom hung to open in at top. Overhead ventilation—correct—indirect ventilation. Opening in—can be fitted with outside flat metal *BOUND SCREEN*. Each window ready to be fitted with a "VENTO" SCREEN.

FITS ANY CONSTRUCTION—Sold only thru building supply and lumber dealers—"and not all of them." Write for new broadside on Vento Utility (factory type) Industrial Puttyless Steel Windows.

Just fill out the coupon below

VENTO STEEL SASH CO., Muskegon Heights, Mich.

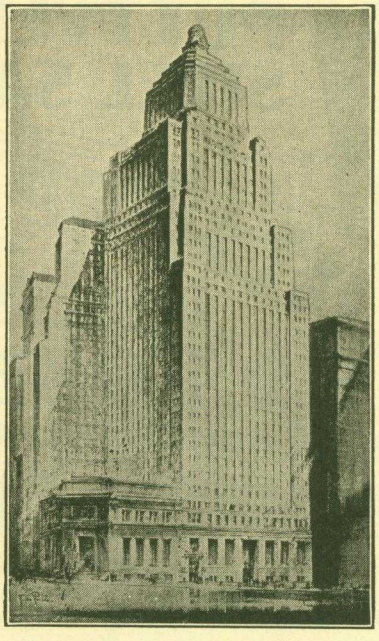
VENTO STEEL SASH CO.
Muskegon Heights, Michigan
Please send me full information about "VENTO."
☐ Basement
☐ Utility or Factory Type

Name.....
Address.....
City.....State.....

American Steel & Wire Company's

WIRE FABRIC

"The Steel Backbone for Concrete"



823,000 sq. ft. of Wire Fabric reinforces the Concrete floor slabs in the new Equitable Trust Building, New York City

THE Equitable Trust Building in the heart of New York's Financial District is built to endure for all time. Each construction feature represents the best available in the special field.

The short span concrete floor arch, *WIRE FABRIC REINFORCED,* is positive protection against fire, load and quake.

Wire Fabric is produced from high strength cold drawn steel which insures absolute safety. Being furnished in rolls it provides continuous reinforcement, properly distributed, and is easily and quickly installed. There is a style or weight for every floor load. WIRE FABRIC is also furnished in light weights for beam wrapping or temperature reinforcement. Write for complete information.

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DETROIT.....Foot of First Street
CINCINNATI.....Union Trust Building
MINNEAPOLIS-ST. PAUL.....
.....Merchants Nat'l Bank Bldg., St. Paul
ST. LOUIS.....506 Olive St.
KANSAS CITY.....417 Grand Avenue
OKLAHOMA CITY..First Nat'l Bank Bldg.
BIRMINGHAM.....Brown-Mark Bldg.
MEMPHIS..Union and Planters Bank Bldg.
DALLAS.....Praetorian Bldg.
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SALT LAKE CITY.....Walker Bank Bldg.
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PITTSBURGH.....Frick Bldg.
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WORCESTER.....94 Grove Street
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WILKES-BARRE.....
.....Miners Bank Bldg.
*SAN FRANCISCO.....Russ Bldg.
*LOS ANGELES.2087 E. Slauson Av.
*PORTLAND.....777 Nicolai St.
*SEATTLE..4th Ave. So. & Conn St.
* *United States Steel Products Co.*

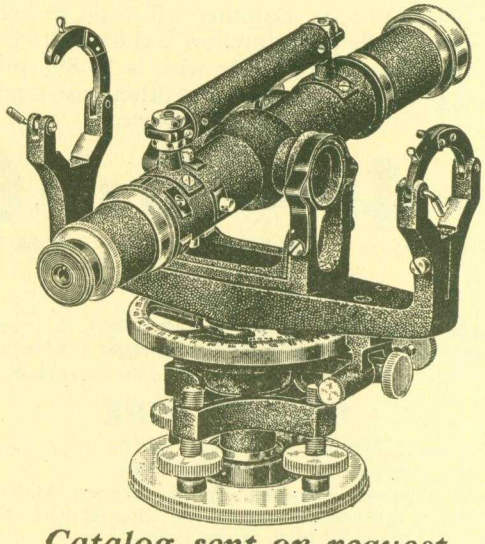
What a whale of a lot of trouble a little inch can make!

Needless to say, "Somebody blundered!" Which goes to prove that, in the long run, it is false economy to use any but the *most dependable* instruments.

K&E

CONVERTIBLE LEVELS

usually are found on jobs where *accuracy* and *speed* mean dollars to the contractor.



Catalog sent on request

KEUFFEL & ESSER CO.

New York, 127 Fulton St. General Office & Factories, Hoboken, N. J.

CHICAGO ST. LOUIS
SAN FRANCISCO MONTREAL

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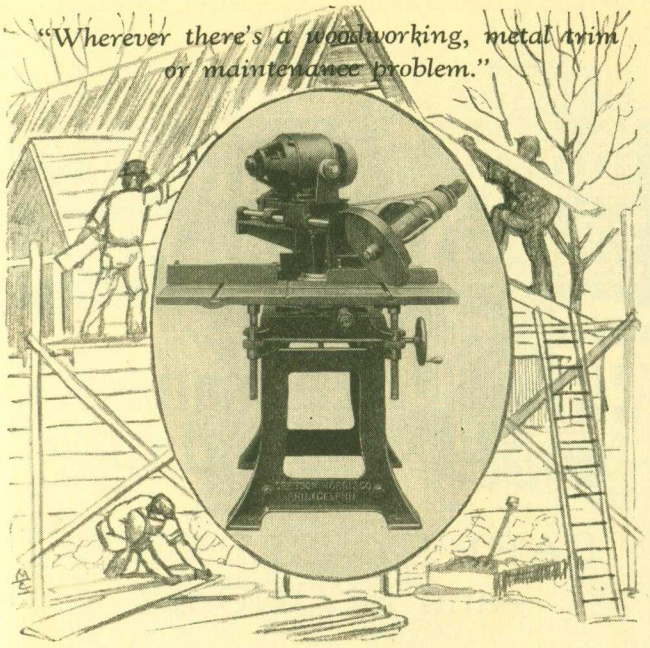


Saves Its Cost—Over and Over . . . . . .

The 20th Century Woodworker always justifies its cost—wherever there's a woodworking, metal trim, or maintenance problem. It saves its cost—over and over . . . and the "first cost" is low!

But it's not a "cheap" machine. The 20th Century is sturdily built of cast iron and forged steel. *Ball-bearing.* Beautifully finished. Portable.

Delayed action in investigating this machine means delayed profits that come from increased production.

20th Century Wood Worker

Gas Motor

The 20th Century can be equipped with a Briggs & Stratton 1½ H. P. Gasoline Motor—which is absolutely dependable and efficient. This motor is very economical to run and makes it possible to use your Woodworker in any location. No power delays—no power expense. An exclusive 20th Century feature.

MAIL THIS COUPON NOW

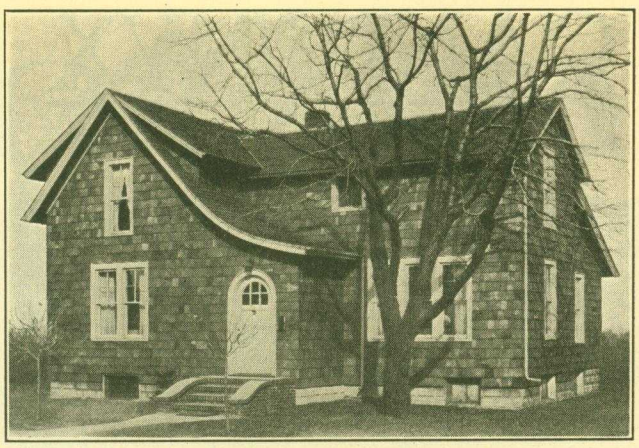
Twentieth Century Sales Agency, *Agents for Manufacturers*
1321 Arch St., Philadelphia, Pa., Dept. P

Please send me, without obligation, full details concerning the ownership and operation of the 20th Century Woodworker.

Name.....

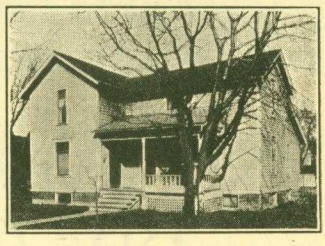
Firm.....

Address.....



WEATHERBEST 3rd Prize Winner —1927 Remodeling Contest

OF the many hundreds of examples submitted in the WEATHERBEST Remodeling Contest, there was a notably large proportion of "L" type houses which lend themselves to improved appearance at relatively low cost. For example, the change shown above at a total cost of $326.06 included WEATHERBEST Stained Shingles for the walls and labor to apply shingles over old siding and roof of the new section.



A nice study of remodeling an old L-type house. Compare this with picture above. WEATHERBEST Stained Shingles were applied directly over old siding and on roof of new section of Mr. Madison Gilbert's home at Owosso, Mich., at small cost with an astonishing valuation increase.

There is a growing opportunity for the contractor who will go after remodeling work as a special business. The WEATHERBEST Remodeling Service Department will gladly offer suggestions. Write for Bulletin giving details of this Service and Broadside showing other examples of remodeling in the 1927 Remodeling Contest. WEATHERBEST STAINED SHINGLE CO., Inc., 138 Main St., North Tonawanda, N. Y. Western Plant—St. Paul, Minn. Distributing Warehouses in Leading Centers.

For remodeling old homes, see book, "Making Old Houses Into Charming Homes," and Broadside of WEATHERBEST 1927 Remodeling Contest prize Winners with actual results and costs. For new work, ask for other literature.

Weatherbest STAINED SHINGLES FOR ROOFS AND SIDE-WALLS

WEATHERBEST STAINED SHINGLE CO., Inc.,
Remodeling Service Dept.,
138 Main St., North Tonawanda, N. Y.

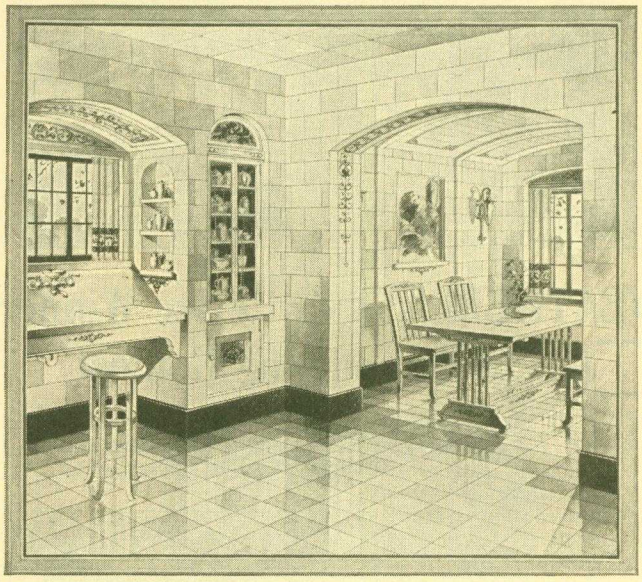
☐ Send Booklet, "Making Old Houses Into Charming Homes," with Broadside showing 1927 WEATHERBEST Remodeling Contest Prize Winners.

☐ For a new house, send Color Chart with Portfolio of 4-color Photogravures showing WEATHERBEST Stained Shingles for sidewalls and roofs.

Name.....

Address.....

SANI ONYX
A VITREOUS MARBLE



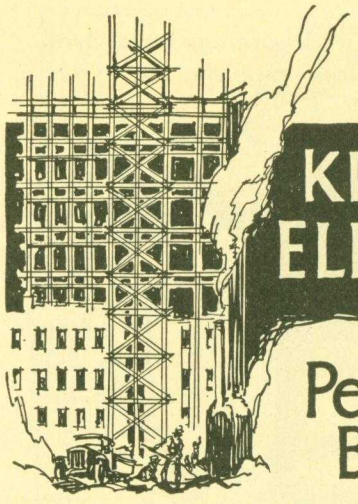
Not Only *New* But *Better*.....

JUST because Sani Onyx is a *new* wall material is no reason at all why it should so rapidly replace conventional, commonplace products.

But Sani Onyx is distinctly and distinctively *better*. It brings surface textures, colors and color combinations never before possible. Not only that, but Sani Onyx is as enduring as the rock from which it is fused. It doesn't crack, chip, check or discolor, even after *years* of hard use. And it's astonishingly easy to clean and keep clean.

MARIETTA MANUFACTURING COMPANY
80 Brookside, Indianapolis, Indiana

We would like to put in your files this beautiful book, picturing Sani Onyx installations in full color. May we send a copy without cost or obligation to you?



KIMBALL ELEVATORS *for* Permanent Building!

SAFETY---SERVICE ---and ECONOMY

LONG life and good service are two outstanding characteristics of Kimball Straight Line Drive Elevators. Nearly half a century of such service has brought many complimentary letters to us. Mr. F. D. Higginbotham, Manager of the Dooly Block in Salt Lake City, writes:

> "In the month of October, 1914, Kimball Passenger Elevators were installed in this building. They have a capacity of 2500 pounds and a speed of 300' per minute. *We have not been without service a single day during thirteen years.*"---This is just *one* example of Kimball Superiority.

Inquire about Kimball Straight Line Drive passenger and freight elevators---motor and machine assembled as an integral unit. Permanent alignment of motor and machine guaranteed.

Valuable descriptive pamphlets sent free upon request.

KIMBALL BROS. CO.
989-97 Ninth St., Council Bluffs, Ia.

Elevator Builders for 45 Years

KIMBALL VBC ELEVATORS COUNCIL BLUFFS, IA. ESTABLISHED 1883

1883

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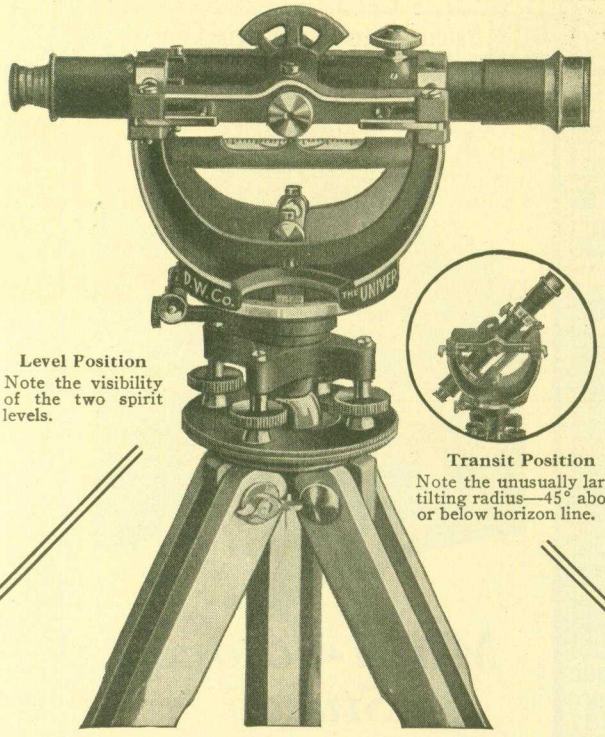

Level Position
Note the visibility of the two spirit levels.

Transit Position
Note the unusually large tilting radius—45° above or below horizon line.

America's Most Progressive Builders Choose—

The "Universal" Level-Transit

New—Different—Better

Detailed information through any of these Dealers or directly through our offices

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ATLANTA, GEORGIA
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Charles Bruning Co., 445 Plymouth Court
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DETROIT, MICHIGAN
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Distributors' names for Portland, Pittsburgh, Cleveland, New Orleans and Philadelphia on request.

Designed especially for heavy duty service for all survey and check-up work on building and road operations, the novel, patented features of the "Universal" combine absolute precision and perfect results with greater speed than is possible with any other type of surveying instrument.

Three points of support—at the center and at the two ends of the bridge—assure perfect optical and mechanical alignment of the telescope at all times. A never-failing lock and release lever engages the telescope at both ends, permitting it to tilt 45° above or below the horizon line.

There is no horizontal turning of the telescope, no lifting it from its support, no danger of dropping it, no loosening or tightening of screws or bands—nothing to disturb its accurate adjustment.

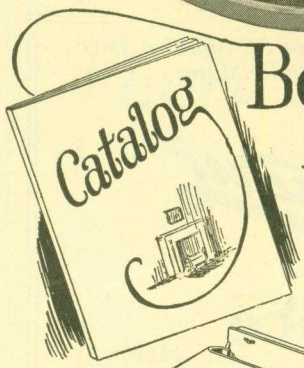
DAVID WHITE CO., Inc.

Manufacturers of *White's Improved* **Surveying and Drawing Instruments**

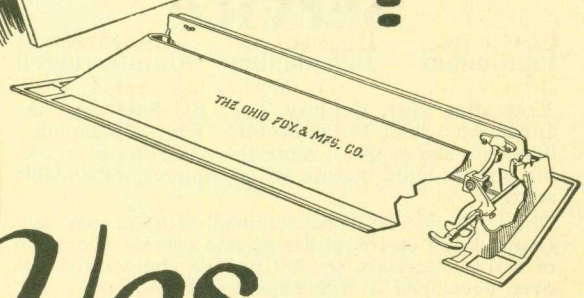
Home Office and Works:
315-319 Court St., Milwaukee, Wis.

Branch Office:
400 S. Hoyne Ave., at West Van Buren St., CHICAGO, ILL.

OHIO



Beautiful! *But Will It* WORK ?



Yes

That is the answer to the prospective home owner's query. A fireplace that actually functions as a heating unit presents a great appeal to all home lovers. We manufacture a complete line of fireplace equipment, from gas logs, gas heaters, andirons, portable fireplace baskets to dome dampers, etc. All are fully guaranteed. We invite you to inspect our line. Coupon below brings our illustrated catalog.

The Ohio Foundry & Mfg. Co.
Steubenville, Ohio

Established 1846

THE OHIO FOUNDRY & MFG. CO.
Steubenville, Ohio.

Gentlemen: Please send me your catalog.

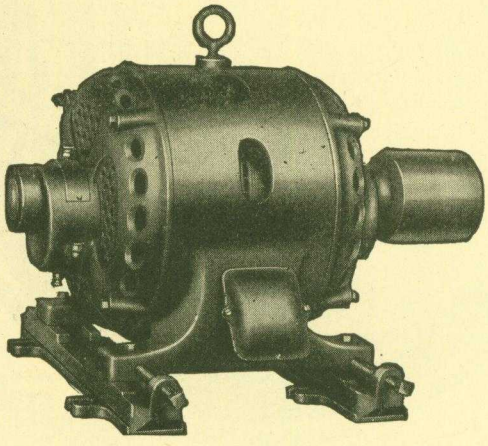
My Dealer's name is.....

Name.....

Street.....

City.....**State**.....

"They Keep a-Running"



7½ Horse Power Century Type SC Squirrel Cage Induction 3 and 2 Phase Motor

Century

Service

Continuous — Dependable — Uninterrupted

Year after year, Century Type SC Squirrel Cage Induction 3 and 2 Phase Motors "Keep a-Running." They are the result of more than 24 years of knowing how to build motors for continuous, dependable service.

They are liberally proportioned, with proper mechanical and electrical design and correct allocation of active materials, so that no one characteristic is over developed at the expense of another. . . . Bearings last. They are machined from phosphor bronze castings, the best bearing material obtainable. . . . Ball or roller bearings can also be supplied. . . . Armatures are commercially indestructible. . . . Conductor bars are solidly brazed to channel section end rings over an area equal to about six times the cross section area of the bars. . . . Field coils withstand dampness, even in humid, tropical climates, because they are thoroughly insulated, and are then saturated with insulating varnish. This preserves the insulation and protects the windings. . . . Dampness does not affect them.

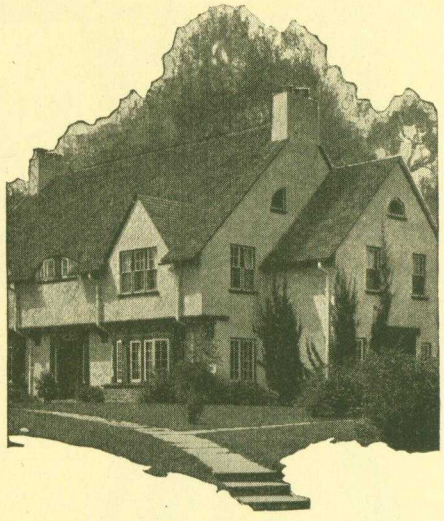
Built in standard sizes from ¼ to 75 horse power.

CENTURY ELECTRIC COMPANY
1806 Pine St. St. Louis, Mo.

33 Stock Points in the United States
And More Than 50 Outside Thereof

¼ to 75 H. P. Century MOTORS ¼ to 75 H. P

Nature's Permanent Mineral Colors



Made Since 1887

Multi-colored Stucco

Made Since 1887

NEW among developments in the coloring of home exteriors is *multi-colored* stucco. There are many pleasing effects possible through this method of subtly blending colors.

For the modern builder, always eager for latest news of developments in the building field, complete information on multi-colored stucco is indispensable.

We will gladly send folders explaining the application and use of Multi-colored Stucco.

Clinton Metallic Paint Co.
558 Clinton Road,
Clinton, N. Y.

Clinton Mortar Colors

CLINTON METALLIC PAINT COMPANY CLINTON N. Y.

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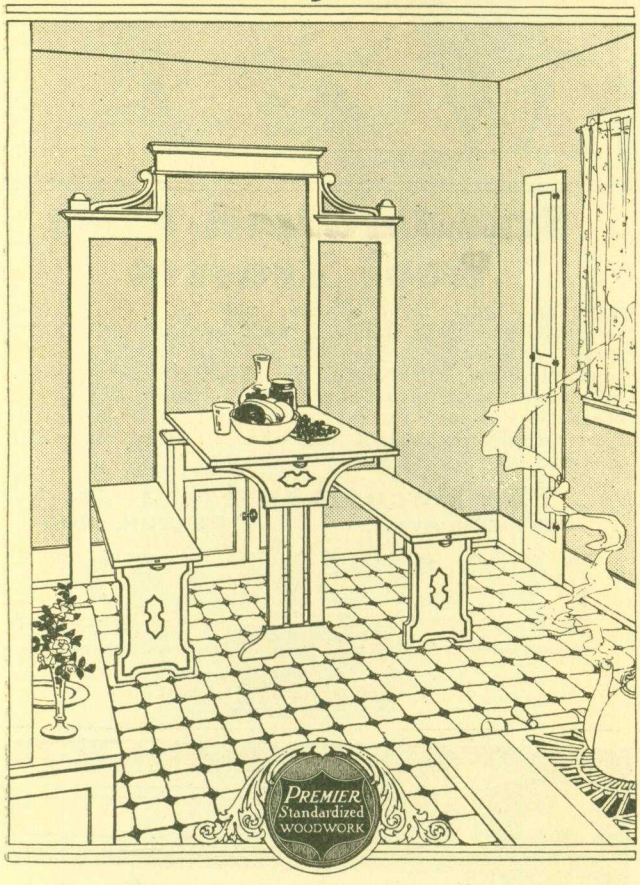
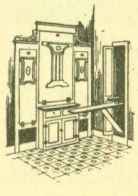
Premier Folding Breakfast Nook



—a Space Saver
—a real convenience
—and moderate in cost

THIS breakfast nook folds up out of the way against the wall when not in use, a tremendous advantage in the small modern kitchen. Its convenience captivates every housewife who sees it... makes a home easier to sell, an apartment easier to rent. The cost is moderate. A few dollars for this breakfast nook adds hundreds of dollars in value. This is just one of the Premier family of built-in conveniences ... every one complete, carton-packed, ready to install.

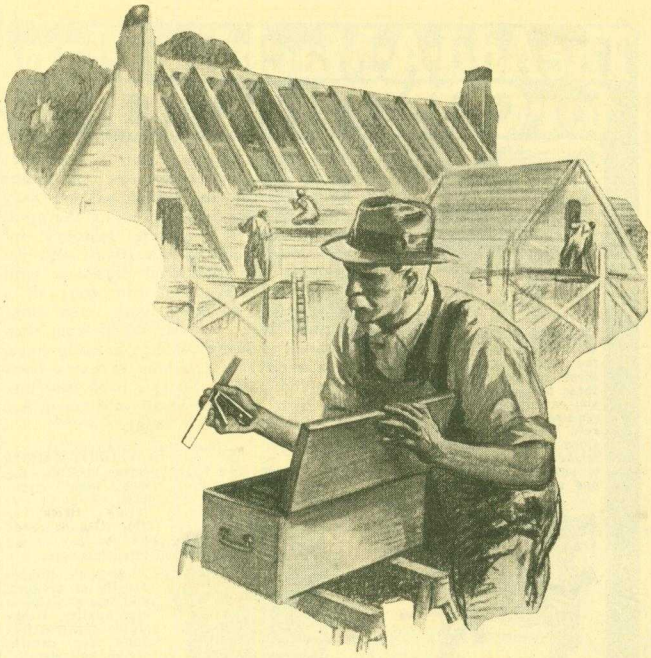


May we send you catalog and specifications?

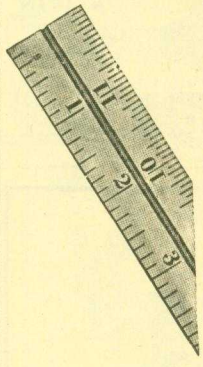
PREMIER Standardized WOODWORK

2215 Mills Street + + El Paso, Texas

Premier Built-in Conveniences are stocked by jobbers in principal cities and sold by leading retail lumber dealers. There is probably a dealer near you.



"There's half a kit in this one tool"



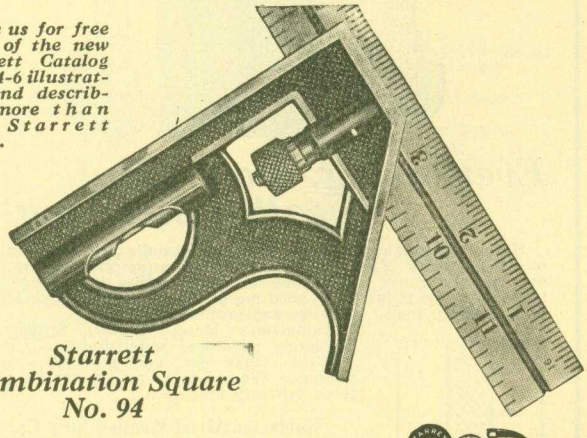
"My Starrett Combination Square is a whole chest of tools in itself. Try Square, Miter, Marking Gage, Rule, Depth Gage, Height Gage, Level and Plumb—all these in this handy little tool,"

Ask your tool dealer to show you the No. 94. In quality, workmanship, legibility and all 'round usefulness it is typically Starrett. You need this and other Starrett Tools.

THE L. S. STARRETT CO.

World's Greatest Toolmakers
Manufacturers of Hacksaws Unexcelled
Steel Tapes—Standard for Accuracy
ATHOS, MASS, U. S. A.

Write us for free copy of the new Starrett Catalog No. 24-6 illustrating and describing more than 2500 Starrett Tools.

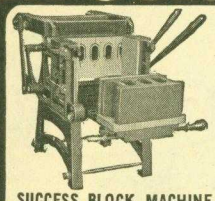


Starrett Combination Square No. 94

Use Starrett Tools

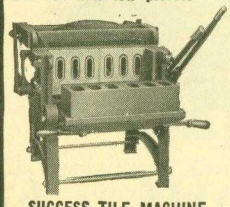
1779

The Add-A-Machine Plan for CONTRACTORS

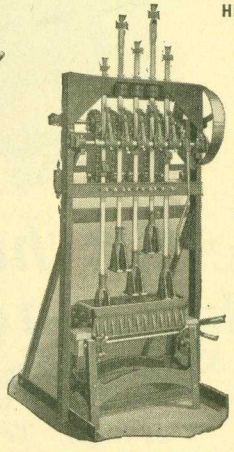


SUCCESS BLOCK MACHINE
Will equip you for making the approved three core block in five sizes and in three new designs. With it you can supply all building requirements. Makes accurate block of true dimensions and of normal wet mixture. Equipped for hand or power. Send for catalog and our new low prices.

The Add-A-Machine plan is an extra profit plan for contractors. A means by which you can branch out gradually into a broader field, increasing the profit possibilities in concrete masonry for your own building operations, and developing an additional business with other builders. You can start in a small way to keep your men busy during slack periods. You can then expand, as many builders actually have, into a sizeable volume of extra business and profit. Success book describes this plan and the small investment required. Send for it today.



SUCCESS TILE MACHINE
You can lower construction costs with this machine. More and more builders are now demanding units that are easy to handle and lay up quickly. This machine produces high quality tile in three sizes, in three distinctive designs, and makes two at each operation. Large capacity, either hand or power. Catalog gives prices and specifications.

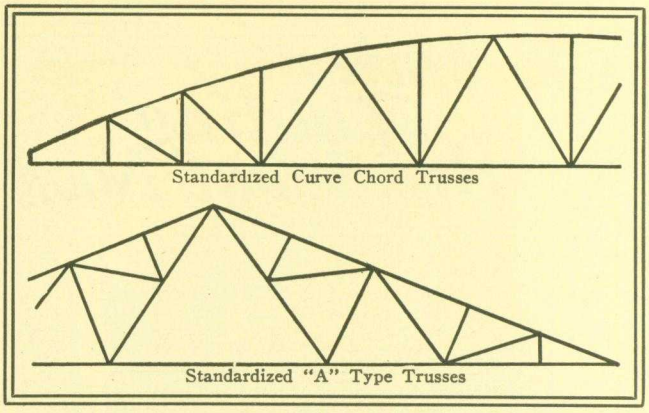


HEAVY DUTY TAMPER
Saves one to two men's labor. Doubles output of Block. Brick or Tile. Can be used on any one or all three machines.

Assures greater density of product, and more uniform high quality. Heavy rigid construction. Send for catalog giving full details.

CONCRETE EQUIPMENT CO.,
550 Ottawa Ave., Holland, Mich.

Send for Catalog

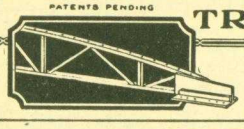


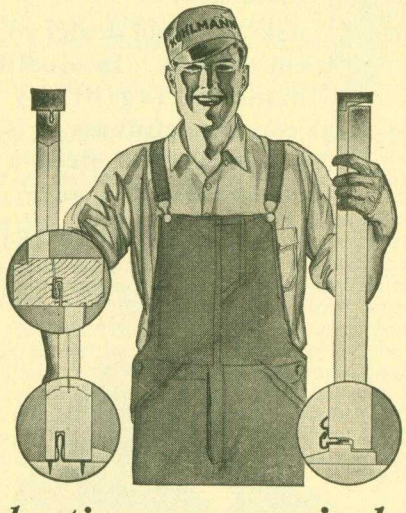
Standardized Steel Roof Trusses

Massillon Steel Roof Trusses are built from regular structural shapes in standard stock sizes for all roof truss spans. No metal is less than ¼ inch thick. All shop connections are arc welded. The longer trusses are shipped in sections with turned bolts for assembly in the field. Massillon Bar Joist Purlins and Nailer Joist Purlins provide the most economical purlin construction. Send for designing data and safe loading tables.

The Macomber Steel Co.
909 Belden Ave. - - - CANTON, OHIO

MASSILLON ROOF TRUSSES
PATENTS PENDING



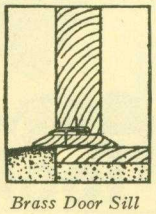


Everlasting, economical weather stripping—

Here's the weather stripping for you to handle and make money on—Kuhlmann's Metal Weather Strip. Contractors, builders and our representatives are making excellent profits by selling and installing these strips. Any good mechanic can do the job perfectly with ordinary tools. It's easy and profitable work.

Kuhlmann's Metal Weather Strips are absolutely wind and water tight.

Write today for our proposition and samples. We can make real money for you. Good territory still open.


Brass Door Sill

Kuhlmann Metal Weather Strip Co.
3805 Forest Park Blvd. St. Louis, Mo.

KUHLMANN'S METAL WEATHER STRIPS

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K-V

Clothes Closet Fixtures

K-V Clothes Closet Fixtures make one clothes closet give the service of two of the old-fashioned type. Larger rooms are possible and construction costs are lowered. A proven sales feature that actually helps sell homes. Used and indorsed by thousands of architects, contractors, builders. Get full details on this money-saving fixture now—before building.

KNAPE & VOGT MFG. CO. *Grand Rapids, Mich.*

This Coupon Brings Complete Information

KNAPE & VOGT MFG. CO.,
658 Richmond St., Grand Rapids, Mich.

Without obligation prove to me that I can save money on my home building program by properly using K-V Clothes Closet Fixtures. Include full data on various styles, sizes, prices and discounts.

Name.....

Address.....

.....

Architect ☐ Contractor ☐ Builder ☐

BUILDING TRADES NEED TRAINED MEN

THE building trades are still booming. Trained men are in demand at good salaries. Government experts estimate that billions of dollars will be spent for construction this year.

Today the most vital need of this great building program is men—*trained men*—men who can step right in and do the skilled work that building construction requires.

There is a simple, easy, practical way by which you can prepare for a better position, at a bigger salary. You can do it right at home, in spare time, no matter where you live, through the International Correspondence Schools.

A recent investigation of 13,298 students enrolled in I. C. S. Building Trades Courses showed that 1291 had become Architects; 246 had become Designers; 494 had become Chief Draftsmen; 2827 had become Draftsmen; 1845 had become Contractors; 211 had become Assistant Foremen; 4030 had become Foremen; 2354 had become Superintendents.

In every instance these students reported salaries or independent incomes far greater than when they took up their studies. Many have shown increases of 300 per cent to 500 per cent. Some have incomes as high as $25,000 per year.

You, too, can have the position you want in the work you like best, an income that will give you and your family the home, the comforts, the luxuries you would like them to have. No matter what your age, your present occupation, or your means, you can do it!

All we ask is the chance to prove it. That's fair, isn't it? Then, mark and mail this coupon.

INTERNATIONAL CORRESPONDENCE SCHOOLS
"The Universal University"
BOX 8169-C SCRANTON, PA.

Without cost or obligation, please send me a copy of your booklet, *"Who Wins and Why,"* and full particulars on the subject *before* which I have marked X:

☐ Architect	☐ Pharmacy	
☐ Architectural Draftsman	☐ Navigation	
☐ Architects' Blueprints	☐ Salesmanship	
☐ Contractor and Builder	☐ Advertising	
☐ Building Foreman	☐ Window Display	
☐ Concrete Builder	☐ Show Card and Sign Lettering	
☐ Structural Engineer	☐ Industrial Management	
☐ Structural Draftsman	☐ Secretarial Work	
☐ Plumber and Steam Fitter	☐ Business Correspondence	
☐ Heating and Ventilation	☐ Bookkeeper	
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☐ Foreman Plumber	☐ Higher Accounting	
☐ Sheet Metal Worker	☐ Common School Subjects	
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☐ Electric Wiring	☐ Civil Service	
☐ Telegraph Engineer	☐ Mining Engineer	
☐ Practical Telephony	☐ Gas Engine Operating	
☐ Mechanical Engineer	☐ Textile Overseer or Supt.	
☐ Mechanical Draftsman	☐ Traffic Manager	
☐ Toolmaker	☐ Airplane Engines	
☐ Machine Shop Practice	☐ Automobiles	☐ Spanish
☐ Stationary Engineer	☐ Agriculture	☐ French
☐ Chemist	☐ Poultry Raising	☐ Radio

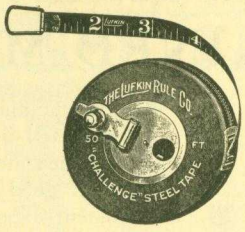
Name _____

Street and No. _____

City _____ State _____

Occupation _____

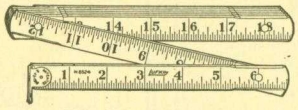
If you reside in Canada, please send this coupon to International Correspondence Schools Canadian, Limited, Montreal, Canada



Steel and Woven Tapes of all patterns, Folding Aluminum and Steel Rules.

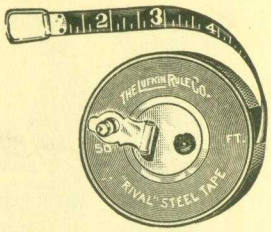
LUFKIN

MEASURING TAPES AND RULES

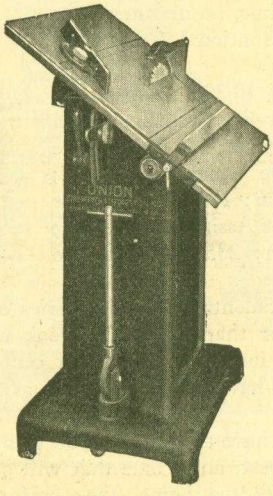


Send for Catalog

New York Windsor, Ont. THE LUFKIN RULE CO. Saginaw, Mich.



Spring Joint Rules with or without hook; Boxwood, Caliper, and Extension Rules.



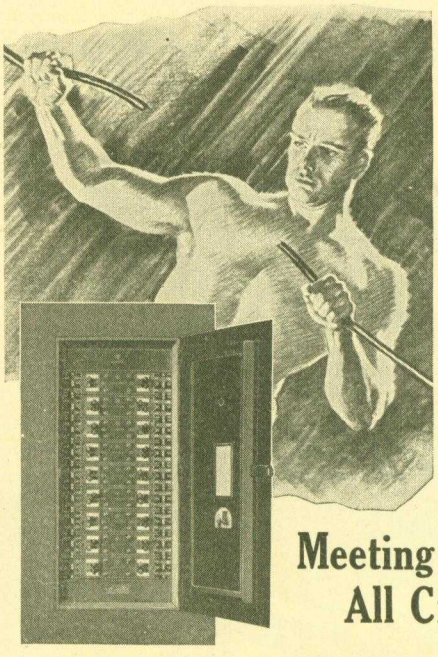
Motor Driven

No Noisy Gears

A Big Profit Maker--

Here is just the machine for contractors. Compact, rugged, and speedy—easily moved from one job to another—will attach to any light socket. Will do your work at much lower cost. Cuts costs in many ways. It's a woodworking machine no contractor can afford to be without. Get the facts, and our catalog illustrating and describing the complete Gallmeyer & Livingston Union line.

Gallmeyer & Livingston Co.
206 Straight Ave. Grand Rapids, Mich.



FA

Panelboards

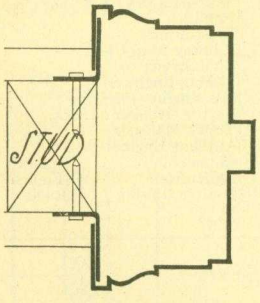
The Better Meeting Place of All Circuits

The influence of a good wiring job affects the value of any building. Use FA Panelboards if you want to emphasize quality throughout on your buildings.

Estimates and catalog free upon request

Frank Adam
ELECTRIC COMPANY
ST. LOUIS
OFFICES IN THIRTY CITIES

ROLLED STEEL DOOR FRAMES WILL INCREASE YOUR PROFITS



Showing buck applied to wood stud

The combination buck jamb and trim eliminates separate wood or steel bucks jambs and trim and thereby reduces erection cost two-thirds as the entire unit is installed at one time.

Cold rolled of 16 gauge steel—it withstands and absorbs the shock of the heaviest door.

Units made for single or double doors, transom openings, etc. Jambs reinforced securely and drilled and tapped for application of hardware.

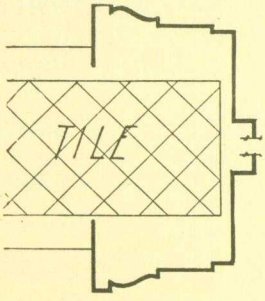
Furnished in prime coat ready for finish painting.

Prompt shipment, low in cost and easy to install.

LEONARD SHEET METAL WORKS, HOBOKEN, N. J.

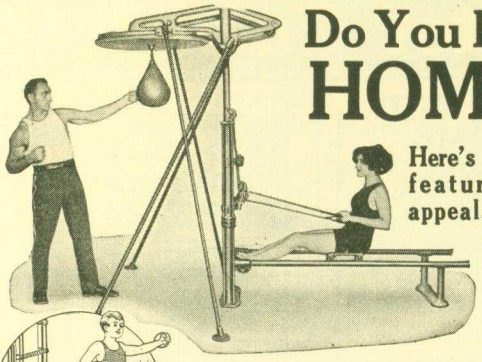
Established 1900

Also Manufacturers of Steel Windows, Kalamein Work and Bronze Doors.



Showing buck applied to hollow tile partition

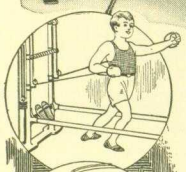
FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



Do You Build HOMES

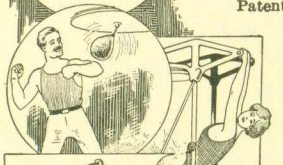
Here's an added feature which appeals to men

"Every Home Can Have Its Own Gymnasium"



GYM JUNIOR
The Home Gymnasium

Patented in U. S. and Foreign Countries

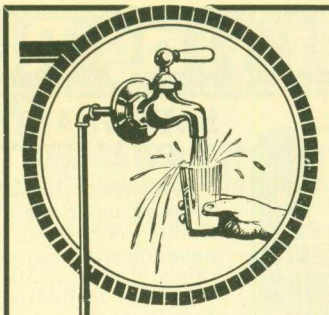


is a strong malleable iron apparatus, combining in 7½x9 ft. floor space, a Rowing Machine, Chest Weights, Punching Bag, Parallel Bars, Wrist Developer, Chinning Bar, and other standard gymnasium equipment. Three persons can use it simultaneously.

Put it in attic, basement, sleeping porch or small room next to shower. Advertise your homes as HEALTH-HOMES — "equipped with a complete gymnasium." Then you will have a selling angle to men, just as built-in kitchen fixtures influence women buyers.

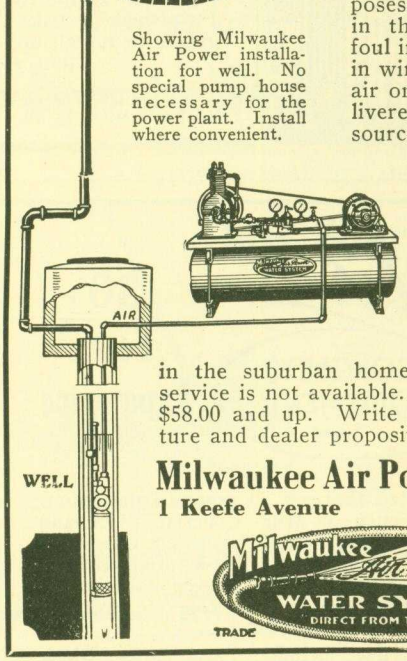
Write for illustrated literature and special discounts to builders.

GYM JUNIOR COMPANY
540 Gregory Avenue, Weehawken, N. J.



Complete Water Service

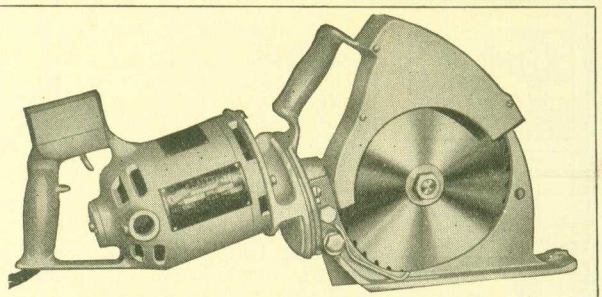
Showing Milwaukee Air Power installation for well. No special pump house necessary for the power plant. Install where convenient.



Water is delivered from well, cistern, lake and spring with one power unit. Use the water from the lake for sanitation sprinkling and from the cistern for laundry purposes. No water is stored in the tank to become foul in summer and freeze in winter. Tank contains air only and water is delivered directly from the source under pressure. A complete range of sizes available suitable for large institutions; suburban homes; summer cottages by the lake. Imagine the convenience of running water in the summer cottage, or in the suburban home where city water service is not available. Prices range from $58.00 and up. Write for complete literature and dealer proposition.

Milwaukee Air Power Pump Co.
1 Keefe Avenue **Milwaukee, Wis.**

Milwaukee Air Power
WATER SYSTEM
DIRECT FROM THE WELL
TRADE MARK



THE CROWE SAFETY SAW CUTS TIME AND LABOR COSTS

Works at Lightning Speed with Absolute Safety

ONE MAN DOES THE WORK OF TEN

One contractor says: "On a job that formerly required a man with a hand saw one hour and ten minutes to complete, the Crowe Safety Saw now does the work in 20 minutes."

Contractors, concrete workers, engineers, shipping departments, railroad yards, lumber yards—wherever a saw is necessary—the Crowe Safety Saw is cutting time and labor costs.

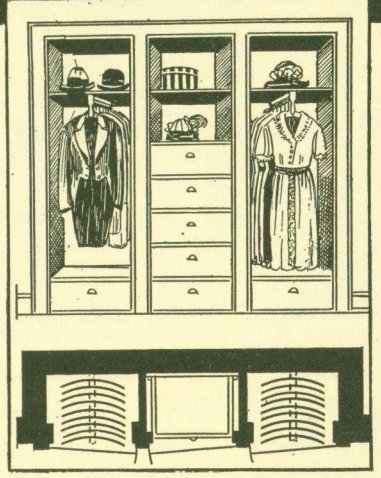
Contractors and workmen prefer it. Officially approved for safety by some of the most critical authorities in the country.

Saw blades are made in three sizes: CC-6, CC-8 and CC-12, and cut 1½, 2½ and 4⅛ inches deep, respectively.

For full description and interesting details write for the folder, "Safety Approved by Many States." Send for it today.

THE CROWE MANUFACTURING CORP.
Dept A, 317 Sycamore St., Cincinnati, Ohio, U. S. A.

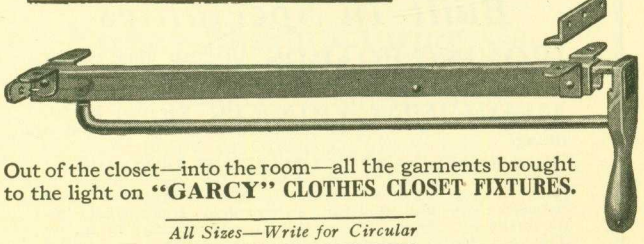
Clothes Closets



that take less space, hold more clothes, save construction costs, and prove

A REAL SELLING POINT

You can make them with these inexpensive "Garcy" clothes closet fixtures.

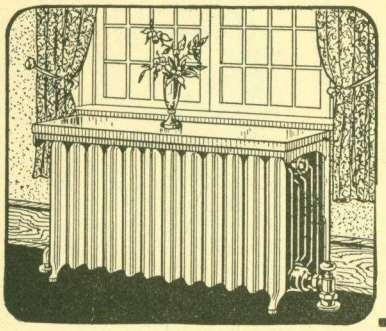


Out of the closet—into the room—all the garments brought to the light on **"GARCY" CLOTHES CLOSET FIXTURES.**

All Sizes—Write for Circular

GARDEN CITY PLATING & MFG. CO.
1432 South Talman Avenue **CHICAGO, ILLINOIS**

Humidifying Radiator Cabinets

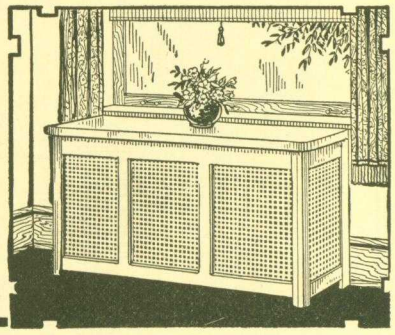


SAFEGUARD HEALTH AND BEAUTIFY THE HOME

Winchester Radiator Cabinets and Covers installed make the Home, Apartment, Public Building or Office more livable. Properly humidifies the air, prevents wall smudge and ruined drapery. Makes a useful window seat or table. Helps to sell or rent the building. Furnished in baked enamel colors or wood grains to match any decorative scheme.

Write for information.

WINCHESTER RADIATOR CABINET CO.
555 WEST MONROE ST. CHICAGO, ILLINOIS

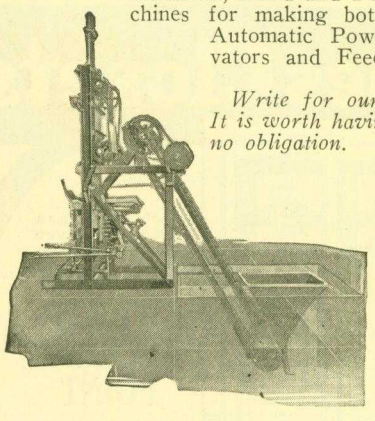


Miles CONCRETE EQUIPMENT

30 Years Experience

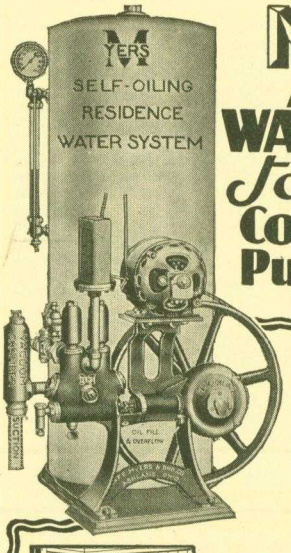
We have devoted the past 30 years to the manufacture and perfection of Miles Concrete Block and Tile-making machinery which has been constantly improved for longer life and greater production at lower cost. Our equipment has proven its value by the test of time in thousands of concrete products plants in all parts of the world.

Our line includes Face Down Block Machines, Hand and Power Stripper Machines for making both block and tile, Automatic Power Tampers, Elevators and Feeders.

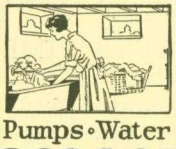


Write for our General Catalog. It is worth having. There will be no obligation.

The Miles Manufacturing Company
Jackson, Michigan
Dept. 7



MYERS ELECTRIC WATER SYSTEMS for Home, Farm, Country Estates, Public or Private Buildings



Suburban and country homes, public and private buildings, parks, summer resorts, camps, manufacturing plants, creameries, dairies, etc.—all are interested in modern water facilities, and sooner or later will become prospects for a water system of some kind.

Myers Water Systems—the dependable line with styles and sizes for any installation up to ten thousand gallons per hour—are efficient and economical. Twenty-four hour a day service without care or attention, they give the utmost in satisfaction at the lowest possible cost.

Permit us to send you a copy of our late catalog with complete information. Write or wire.

THE F. E. MYERS & BRO. CO.
ASHLAND, OHIO.
Pumps • Water Systems • Hay Tools • Door Hangers

WONDER-LINE
Built-In Specialties

IRONING BOARDS All types. Made of clear Spruce, rigid and lasting. The best buy at the best price on the market.

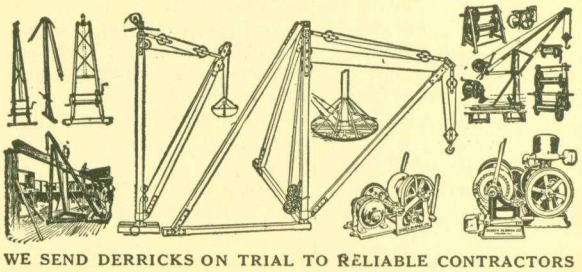
MEDICINE CABINETS Venetian Model. Regular type or tilting.

TELEPHONE CABINET Saves marring of walls when telephone is installed or disconnected. May be placed in a wall between rooms and used from either room. Has special compartment for phone directories. Rough opening, 14 in. by 55½ in. Depth required, 5½ in.

WRITE TODAY

Hugo M. Carlson Co. 1809 Balmoral Ave. Chicago, Illinois

We Mfgr. A COMPLETE LINE OF BUILDERS' DERRICKS and Winches

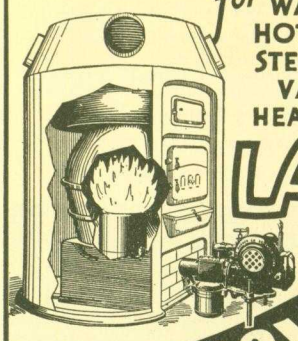


WE SEND DERRICKS ON TRIAL TO RELIABLE CONTRACTORS

OUR MOTTO IS SATISFACTION OR DERRICK RETURNED

Write for Circular No. 2 with illustrations, descriptions and best prices on our complete line. Sasgen Builders' Derricks are built of the best Crucible Steel and Malleable Iron Fittings which makes them light, strong, safe and durable. The derricks will please you, and probably more than pay for themselves on the first job. Get one on trial.

SASGEN DERRICK CO., 3101-3125 W. GRAND AVE. CHICAGO, ILL.
NEW YORK OFFICE—130 West 42nd St.



for WARM AIR HOT WATER STEAM OR VAPOR HEATING PLANTS

LACO

The PROVED Oil Burner

SIMPLE AS THE ORDINARY KEROSENE LAMP

For every kind of heating system—for every size home or building, the LACO is the PROVED oil burner.

When the LACO oil burner is installed in your present heating plant your worries over the heating problem have ended. You will then have automatic, quiet, clean, economical heat. No more trips to the basement to poke up an indifferent fire—no more shoveling of coal or carrying out ashes. At the touch of a finger to the thermostatic control, you can have just the temperature you want all over the house no matter how cold it is outdoors.

At the extremely low price of $225.00 (tank and installation extra) the proved LACO is made to heat homes of from five to seven rooms better and more economically. Six other sizes are manufactured to meet every heating requirement. Each size is the lowest in price for its heating capacity. It's as simple as the ordinary kerosene lamp; safe as a gas range. Thousands of LACO oil burners have been installed. Write for details, proof and prices of the remarkable LACO.

DEALERS!
Ask About the LACO Sales Opportunity

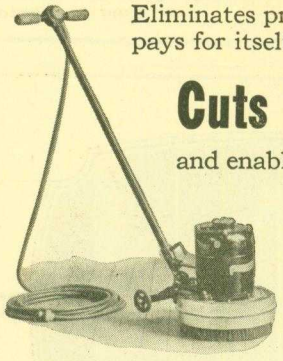
LACO GAS BURNER CO.,
304 Union St., - Griswold, Iowa

KENT

INCREASE YOUR PROFITS

Contractors are demanding a light weight portable sanding machine that can be easily wheeled from job to job—plugs in any light socket or wall outlet.

Does the Work of Five Men!



Eliminates practically all hand work—pays for itself in a short time.

Cuts Your Costs—

and enables you to save the money that now goes to unnecessary help. It has done it for others. Why not for you?

Write for 10-day FREE TRIAL OFFER and easy payment plan.

FREE TRIAL

101 Canal St. The KENT Co. Rome, N.Y.

BUILT TO LAST

SAVE MONEY ON YOUR LIGHTING FIXTURES

HOME OWNERS!
BUILDERS!
Send for Our BIG New
FREE Catalog

Containing hundreds of fixtures for every purpose and every taste. Our selection is the finest and most complete. Be sure you have our catalog before buying. Our prices save you money and our MONEY BACK GUARANTEE gives you 30 DAYS TRIAL.

Contractors, Builders and Electricians are invited to write for our proposition

MAIL COUPON

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Send me FREE your Big Bargain Catalog—

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Address _____

P. O. _____ *State* _____

Occupation _____

PARAMOUNT ELECTRIC CO
930 Z ARCH ST., PHILA., PA.

14 POINTS

LET US EXPLAIN WHY YOU NEED AN ESSKAY
ON THE JOB ← SERVES BOTH → IN THE SHOP

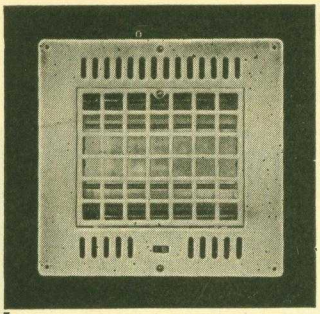
Esskay Manufacturing Co.
327 Second Ave., North
MINNEAPOLIS, MINNESOTA

TELL ME MORE ABOUT IT

NAME _____

STREET _____

CITY _____ STATE _____



Radia Wall Type Heater

The very thing for the bathroom or dressing room. A permanent installation that adds 100% to home comfort and appeal. The Globar element, unharmed by water, makes it ideal for bathrooms. Requires wall opening 14"x14"x3½". List Price $25.00.

RADIA
ELECTRIC HEATERS

Every spring sees a great flurry of building. The homes that turn over quickly with a greater return of profit are the homes that contain modern appliances, a year or two ahead of all the rest.

Convenience, Beauty and Appeal are what Radia Electric Heaters really represent and are the outstanding features that strike prospective home owners.

What better way to set off the interior of a home than in an attractive fireplace, alive with the realistic flames artificially produced within the Radia Log. A generous supply of heat may also be had at the turn of the switch.

Quick, clean, odorless heat in the Bathroom or Bedroom, instantly available on chilly days before the furnace is started or as an auxiliary in the dead of winter is the purpose of the Radia Wall Heater—and it serves its purpose well and economically.

A post card will bring you full descriptive literature and prices. Write today.

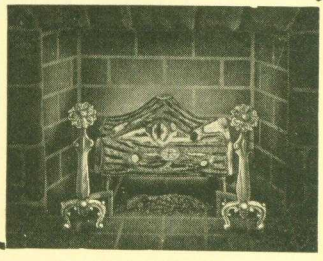
F. W. SHEPLER STOVE CO.,
1300 Sheffield St., Pittsburgh, Pa.

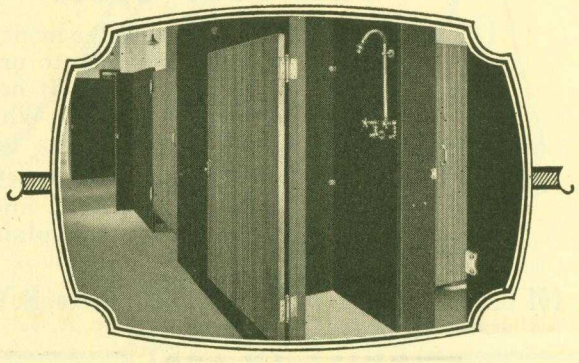
The Radia Fireplace Log

A reproduction of a log fire that is startlingly real. It may be used as an artificial flame producing ornament or as a heater—a separate switch controls the Globar heating element.

Made in three widths 18", 22" and 28".

List Prices $25.00—$45.00.



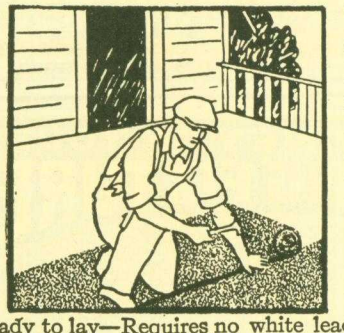


STRUCTURAL SLATE IS ADAPTABLE TO MANY USES

For Toilet Enclosures, Shower Stalls, Wainscots, Caps, Stairways, Bases, Floors, Floor Stripes, Fireplaces, Store Fronts, Structural Slate is the ideal material. It is Economical, Artistic, Sanitary—a material so durable that it will outlast the building itself.

THE STRUCTURAL SLATE CO.
504 Robinson Ave., Pen Argyl, Pa.
Branch Offices in Leading Cities

BOYLE'S BAYONNE
ready to lay
Roof and Deck Cloth



The ideal covering for Porch Floors, Decks or Piazzas, Sun Parlors, etc.

Waterproof
Weatherproof
Durable
Flexible

Lays flat
Stays flat

Ready to lay—Requires no white lead bedding; will not buckle, crack or peel.

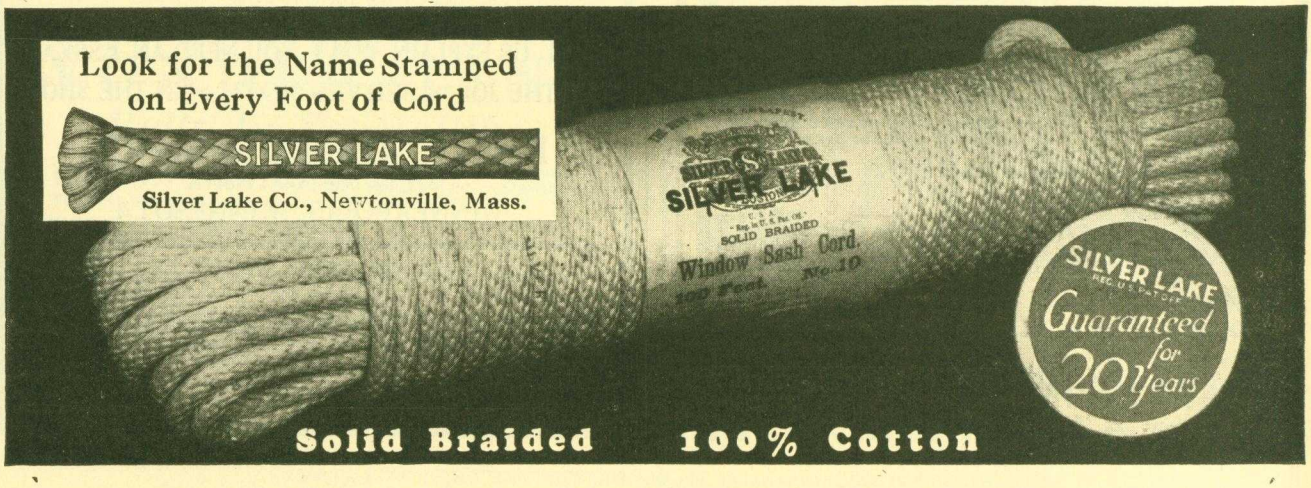
Write today for our Sample Booklet "P."

JOHN BOYLE & CO. Inc.
Established 1860
112-114 Duane St., New York
1317-1319 Pine St., St. Louis, Mo.

Look for the Name Stamped on Every Foot of Cord

SILVER LAKE

Silver Lake Co., Newtonville, Mass.

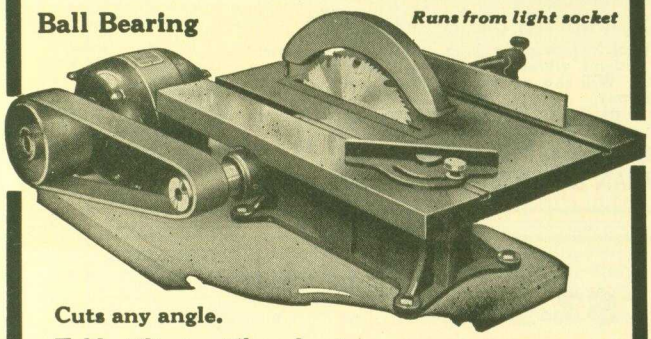


FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Safety - Saw

RIPS - CROSS CUTS - MITERS - JOINTS
GROOVES - RABBETS - TENONS - BORES
MORTISES - DADOES - BEVELS - SANDS

Ball Bearing *Runs from light socket*



Cuts any angle.

Table tilts to 45° and raises for any depth of cut or Dado

Handles 2½" Material with 8" Saw

Do your work on this machine and save many hours hard labor. The Safety Saw will handle 80% of your inside trim, closets, shelving, cabinets, etc., and will pay for itself on the first job.

WITHOUT MOTOR $35.00
WITH ½ H. P. MOTOR $67.00

Metal Table 14" x 17"

$48.50

Including, ½ H. P. A. C. Motor, Belt, Pulley, 8 in. Saw, 2 Guides. Aluminum Guard.

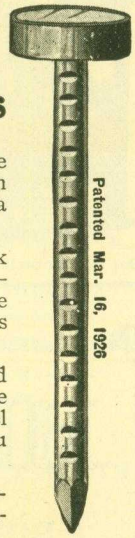
Free Trial

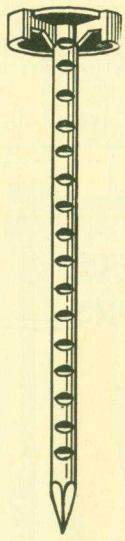
Write for Folder SAB-5

SAFE TOOL MFG. CO., Bridgeport, Pa.

"led-hed" Nails

A *Better* Nail For Roofing Purposes





Here is a nail that plugs the hole caused by driving it through any roofing material. It makes a **DOUBLE** water-tight seal.

Nails rust away at the shank — **UNDERNEATH** the head — but "led-hed" nails keep the moisture away which prevents rusting and protects roofing.

A "led-hed" has all the lead under the head. In driving, the hammer hits squarely on the steel nail head and the harder you drive it, the tighter it seals.

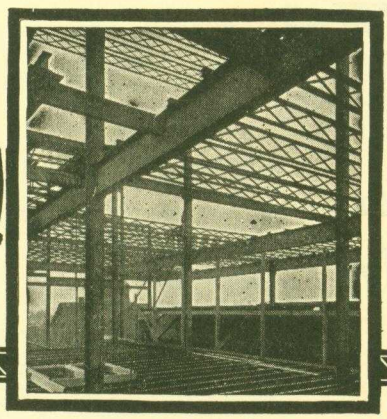
Especially designed for Corrugated Sheet Steel; Metal Shingles; Metal Tile, etc.

Pure Copper "led-heds" are perfect nails for laying Slate Shingles. The lead packs in around the nail hole and prevents slate from cutting off nails.

WRITE FOR SAMPLES AND PRICES

The Deniston Company, 3101 W. Harrison St. Chicago, Illinois

Consider the BATES-TRUSS JOIST *It Pays!*



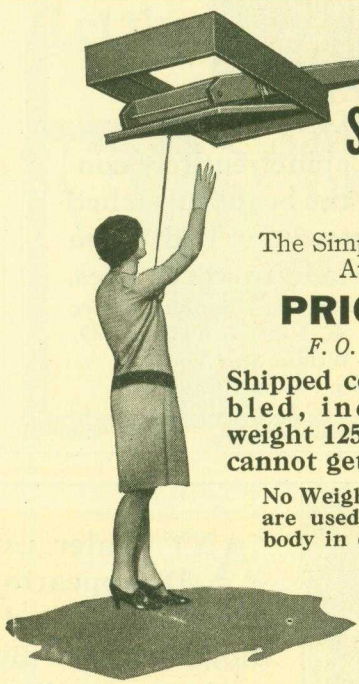
Bates-Truss Joists

THE expanded, one-piece Bates-Truss Joist has many advantages over either the assembled or the solid web types of joist. The expanded truss has no joints and therefore has no welds or rivets in shear or tension. The open web permits piping to be run through the joists at any desired point.

LOW COST—Because of the simple method of manufacture, Bates-Truss Joists are exceedingly low priced. Write for our catalog.

The Expanded
BATES-TRUSS JOIST
A Sound Engineering Product

Bates Expanded Steel Truss Co.
EAST CHICAGO, INDIANA



Frazier Self-Balanced Stairs

The Simplified Disappearing Attic Stairway

PRICE $35.00

F. O. B. Pittsburgh, Pa.

Shipped completely assembled, including Jamb, weight 125 lbs. These stairs cannot get out of order.

No Weights—Springs or Cable are used. Installed by anybody in one-half hour.

OUR GUARANTEE—In event stairs are not as represented return to us at our expense.

Attractive Specialty Salesman Arrangements

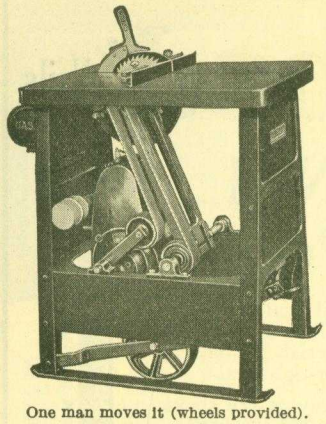
Send this Coupon for Information

FRAZIER STAIR COMPANY
2615 West Liberty Avenue, Pittsburgh, Pa.

Gentlemen: I am an Architect ☐ Builder ☐ Dealer ☐
Please send Details on Frazier Stairs

Name.....

Address.....

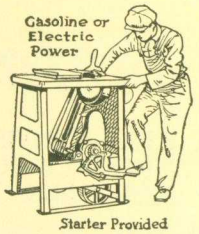


One man moves it (wheels provided).

WHY SAW LUMBER BY HAND?

When You Can Take A Power Saw Out On Every Job
The Saving You Make With Its Use Is A Real Profit

Here is a **Powerful, Portable, Carpenter, Sawing Machine** not dependent on electric service or skill of the operator. Will cut rafters, studs, stairhorses and bridging; square long dimensions as fast as you can handle the lumber. For trimming sash, doors, screens, fitting casing and flooring. Will do those smooth, accurate jobs with **50% of the cost of hand fitting.**

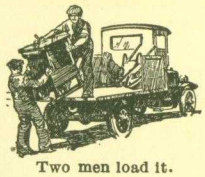


Starter Provided

Cross Cuts, Rips, Miters, Dados

Furnished with either gasoline or electric power, or both. Gasoline equipment weighs 300 pounds and is positively without vibration. Runs all day long on a couple of gallons of gas and a little oil. Will saw as much lumber as a crew with hand saws. Build 1928 buildings 1928 way.

If you will write, we will make you a trial offer that will interest you. Delivery from stock or warehouse near you.



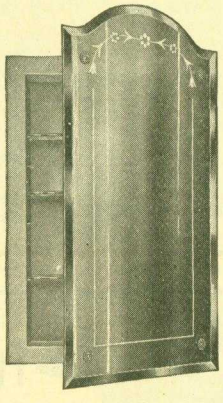
Two men load it.

Manufactured by

4446 Royalston Ave., D. W. ONAN & SONS, Minneapolis, Minn.

HESS CABINETS and MIRRORS

Snow-White Steel



VENETIAN STYLE

A De Luxe Cabinet, entirely concealed by the beautiful etched mirror. The last word in bath room furnishing. Made in three sizes.

Ask your dealer; or write us for illustrated booklet.

HESS WARMING & VENTILATING CO.
Makers of Hess *Welded Steel* Furnaces
1220 S. Western Avenue, Chicago.

$2.50

per day starts the rates at the popular Hotel Martinique. Thousands of discriminating visitors to

New York

regularly enjoy the comfortable accommodations, splendid food and the greatest

Convenience

offered by the Martinique—a modern, fireproof hotel situated in the very heart of the big city. A cordial

Welcome

awaits every visitor to New York who expects and receives—"the best without extravagance" at the Hotel Martinique.

A. E. SINGLETON, Mgr.

Hotel | *600 ROOMS*

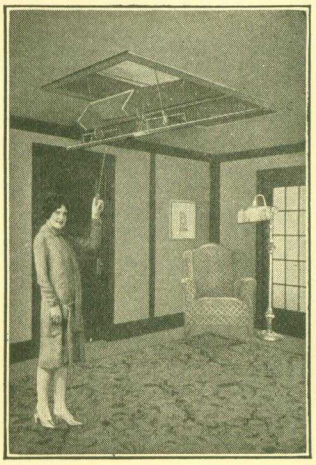
MARTINIQUE

Affiliated with Hotel McAlpin

Broadway—32nd to 33rd Streets
New York City

ANY dealer can supply a Bessler Disappearing Stairway. Go to your dealer and ask him to show how, with a Bessler to reach the attic, you will be afforded greatly increased space at slight cost. He will be glad to give you all the facts.

The Bessler Disappearing Stairway Co.
AKRON, OHIO



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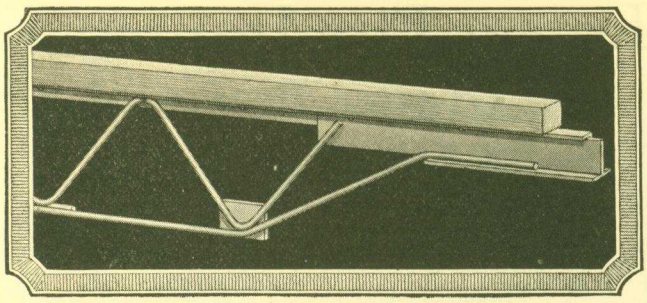


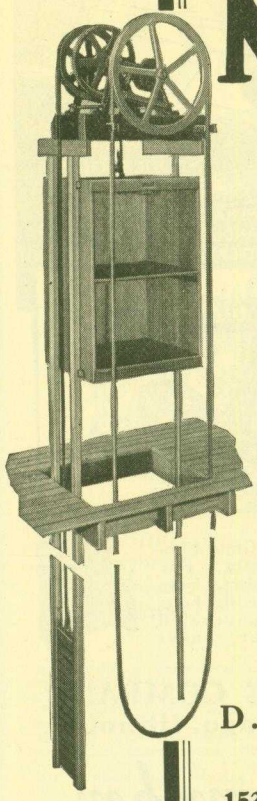
The Massillon Nailer Joist

—a practical steel floor joist for use in homes and buildings where the funds available do not warrant the use of strictly fireproof concrete slab floors. Strength, elimination of shrinkage and warping, shipments from stock and a high degree of fire resistance are features of the construction—all at a cost approaching that of wood joist floors.

Wood flooring is nailed directly to a wood nailing screed forming part of the top member of the joist. Metal lath and plaster, plaster board or other standard ceilings are readily attached to the bottom bars.

Descriptive literature and designing data will be mailed on request. Send us the plans for your building in asking for quotations.

THE MACOMBER STEEL CO.
909 Belden Ave., Canton, Ohio
Manufacturers
Sales Representatives in all principal cities



Matot

Full Diameter Lift Wheel — Hobbed Gear Automatic Brake

DUMB WAITER

Matot machines are roller-bearing throughout, easy of operation, noiseless, and guaranteed for five years.

LARGE STOCK PROMPT SHIPMENTS

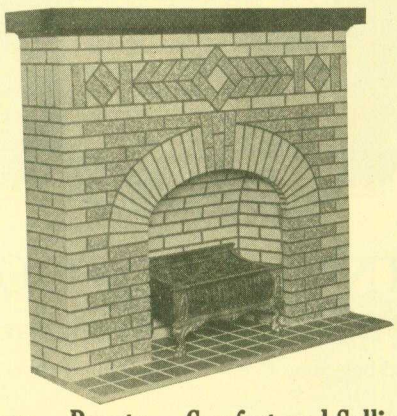
Catalog On Request

D. A. MATOT CO.
Manufacturers of Hand Power Dumb Waiters and Elevators
1539 Montana St., Chicago

READYBUILT

(REG. U. S. PAT. OFF.)

FIREPLACES



Add Cheer—Beauty—Comfort and Selling Value

TO ANY HOUSE

Details Free!

Dealers, Builders and Home Owners, write for prices and full information.

Special Sales Plan to Representative Dealers.

Far more beautiful and far more economical, Ready-Built fireplaces bring lasting charm and undeniable comfort into the home. They enhance property value by increasing salability.

Satisfactorily used and recommended by leading builders in principal cities. Far superior to brick built in beauty and durability, yet cost low enough to be made a selling feature in modest-priced homes.

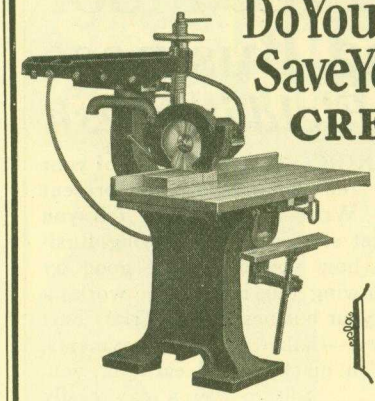
A variety of designs, styles, sizes and colors makes possible any architectural choice to harmonize with house plan. Easy to install—no disturbance to floor or wall. Any handy man can do it.

Shipped completely ready to install anywhere.

The Readybuilt Products Co. 2404 Frederick Ave. Baltimore, Md.

Let this Wonderful Machine Do Your Work *and* Save You Money

CRESCENT



Universal Cut-Off Saw

Send for FREE Illustrated Circular

You can turn out more jobs in less time, do them easier and make bigger profits with this handy Crescent Universal Cut-Off Saw. By plainly graduated scales you can instantly adjust saw to cut any angle desired. Eleven operations from straight sawing to stair routing. Readily portable, easy to operate, reliably accurate, speedy, safe and no flying sawdust. A real money maker. Guaranteed to give satisfaction or money refunded.

----------MAIL THIS COUPON----

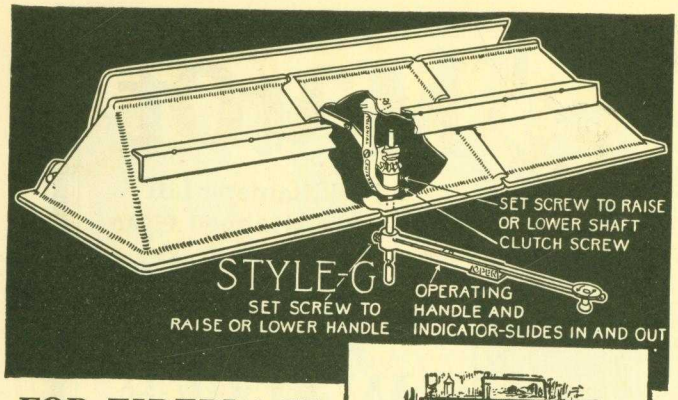
THE CRESCENT MACHINE CO.
224 Main Street, Leetonia, Ohio

Please send free circular on your Universal Cut-Off Saw.

Name.....

Address.....

Occupation.....



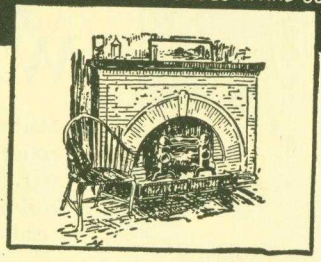
FOR FIREPLACE SATISFACTION

COLONIAL DAMPER

The new style "G" of the reliable Colonial Damper can be set two or three courses of brick above the opening where best results are obtained. Operating handle slides out of sight under the opening. Pulls forward and moves right or left to open or close. Controls draft perfectly.

Colonial Damper, Ash Traps, Ash Pit Doors, etc., at your dealers.

Write for details of fireplace constructions FREE.



Glo-Hot Grate Electric — Heats. Fits any fireplace, looks like live coals, heats from concealed "Glo-Bar" under hood.

COLONIAL FIREPLACE COMPANY
4604 Roosevelt Rd., Chicago, Illinois

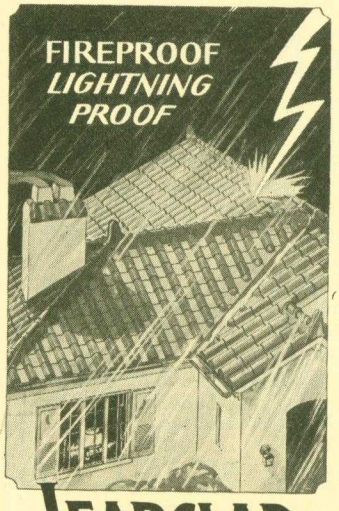
Colonial Head-Throat and Damper

Lower Fire Insurance

Greater Beauty
Longer Life

Only a metal roof can be both fire and lightning proof. Only a metal roof can be permanently leakproof, because it is the only roofing material which doesn't warp, crack or break.

Leadclad metal Spanish Tiles have all the beauty of heavy, expensive clay tiles, but are lighter, stronger, non-breakable and less costly. Lead surpasses copper in weather resisting qualities. "Leadclad" is an improvement on both, consisting of a heavy jacket of everlasting lead fused on a copper-bearing steel base, which gives maximum strength with light weight. Regardless of what you pay, you cannot get a better, safer, stronger, more permanent and beautiful roof than Leadclad. Write for free catalog of Leadclad roofings, gutters, downspouts, flashings, etc.

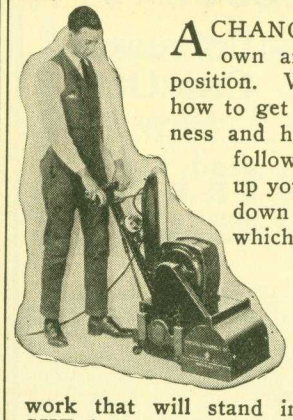


LEADCLAD
REG. U.S. PAT. OFFICE 1923

Wheeling Metal & Mfg. Co.
Dept. 1-C **Wheeling, W. Va.**

SPANISH TILES ◆ METAL SHINGLES

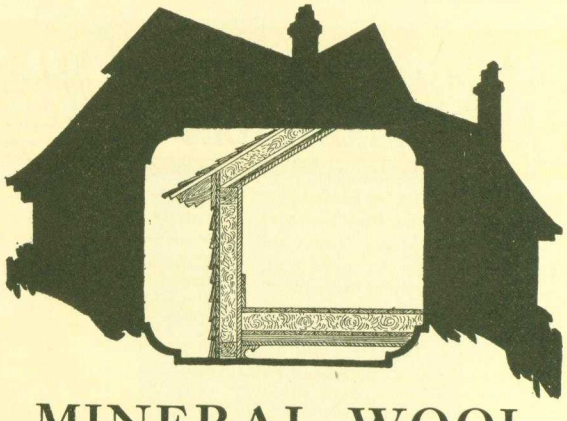
Get Into the Floor Surfacing Business
While the Field is Fresh



A CHANCE to have a business of your own and still retain your present position. Write today—let us tell you how to get started in this Paying Business and how you can make good by following our method in working up your business. Free Trial. Part down — balance easy payments, which machine will earn for you. $40 to $50 a day easily earned with the AUTOMATIC—the result of 16 years' manufacturing experience. Will save the wages of 5 men and do work that will stand inspection against the light. SKF ball bearings, carefully protected from dust—Whitney Silent Chain—Roller Pressure Regulator—Force Feed Lubrication—Edge Roller Border Work Eliminated—Steel, not cast iron construction—all dust taken up on forward operation with New Vacuum Nozzle—all working parts inclosed.

The Little Automatic Surfacing Machine is a wonder for removing varnish from desk tops, counters, etc., or for all sorts of new work.

WAYVELL CHAPPELL & CO.
38-40 Jackson St., Dept. Z WAUKEGAN, ILL.



MINERAL WOOL
The Perfect Insulator

is daily adding to the comfort of home owners everywhere.

Buildings lined with it are many degrees cooler in summer and many degrees warmer in winter. The saving alone which it effects in winter fuel will pay for installation within a short period.

For greater comfort and economy in your home we urge your investigation of this fireproof, sound-proof and vermin-proof mineral insulating material.

Sample and illustrated booklet on request

U. S. MINERAL WOOL COMPANY
280 Madison Avenue, New York

Western Connection:
INSULATING PRODUCTS COMPANY
1553 West Madison Street, Chicago, Illinois

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This Proved Insulation Is "Sprayed on with Guns"!

Sprayo-Flake pays REAL PROFITS. Eliminates all the difficulties of bulk, sheet and roll type insulation. Newly developed process and material enables licensed contractors and representatives to meet all competition.

Sprayo-Flake is vermin-proof, fire-resistant, sound-deadening. Tightly seals nooks, crevices, around pipes, window jambs, etc. Quickly applied by air. Two men can insulate 2,000 sq. ft. daily with Sprayo-Flake.

Distributors Wanted

We are interested in hearing from responsible parties who are established in or affiliated with the building industry. Unusual profit-making opportunity. Write us on your letterhead for complete details.

SPRAYO-FLAKE COMPANY
56 So. Bay Street, Milwaukee, Wisconsin

RESISTS COLD
SPRAYO-FLAKE
STOPS HEAT

"EDWARDS" Roman METAL SHINGLE

Good Buildings deserve Good ROOFING

Write for Beautifully Illustrated Catalogue It Explains

A remarkable transformation takes place when an "Edwards" Metal roof is properly applied to a house—all of the charm of the old Spanish Terra Cotta Roofing Tile is preserved, even to the color.

An Edwards Roman Metal Shingle Roof is a real commercial asset and will bring a better return in rent or sale.

Edwards Metal Roofings made to have the appearance of wood shingles, tile, slate, or any other roofing effect, and none of these fine artistic effects will cost any more than a plain, commonplace roof.

All Edwards Metal Roofing is easy to lay—no big expense for skilled labor—storms and winds will not wrench it loose. It is lightning-proof and fire-proof—Reduces Insurance Rates.

When an Edwards Roof is laid, it is there to stay.

THE EDWARDS MFG. CO., 401-417 EGGLESTON AVE., CINCINNATI, OHIO

The World's Largest Manufacturers of Metal Roofing, Metal Ceilings, Metal Garages, Portable Buildings, Rolling Steel Doors, etc.

ONE MAN WITH ALOE'S "JIFFY" SAW *DOES THE WORK OF 10 MEN WITH HAND SAWS*

Saves 85% of the Hand-Saw Labor—
Runs All Day on One Gallon of Gasoline

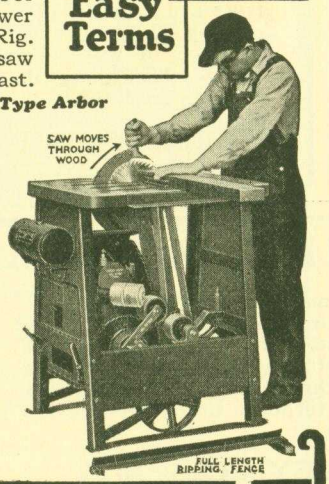
Free Trial

Easy Terms

Save the high wages of ten hand-sawers—save hours upon hours of time—with Aloe's new high-power "Jiffy" Portable Gasoline Saw Rig. Does anything that a hand saw can do and does it ten times as fast.

Its Wonder Feature—Swinging Type Arbor

The old, cumbersome method of pushing the lumber against the blade is done away with. The saw is drawn through the lumber by a convenient handle, which also acts as a safety guard. Cross-cuts, rips and miters, dados, rabbets, etc. Works up 8,000 to 10,000 ft. of lumber a day with one man operating. Has powerful gasoline engine—runs as smooth as an electric motor. Portable—mounted on wheels—can be taken anywhere.



EASY TO OWN

Let us tell you more about the "Jiffy" Saw—about our liberal TRIAL offer—about our Easy Ownership Plan which gives you several months to pay. Learn how the "Jiffy" can pay for itself on the first job. Mail the coupon now.

MAIL COUPON TODAY

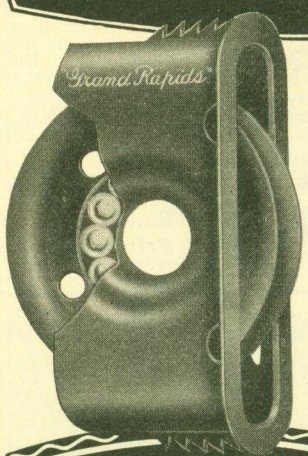
A. S. ALOE COMPANY, 1810 Olive Street, St. Louis, Missouri.

Without obligation, please send me full particulars about the high-power "Jiffy" Portable Gasoline Saw Rig and details of how it pays for itself.

Name.....

Address.....

Standard of the World for Over a Quarter Century



A quarter century, and more, of Supremacy is the proud record of Grand Rapids All Steel Sash Pulleys—the products of thirty years of specialization.

An overwhelming majority of all buyers of pulleys use "Grand Rapids" exclusively because they are unmatched in strength, ease of operation, longevity and economy.

The Grand Rapids All Steel line is Complete—in this line only can you obtain the large Lubricated Cone Bearing Pulleys, self-aligning and noiseless.

Let us prove why you, too, should standardize on the Grand Rapids Line.

Grand Rapids Hardware Co.
556 Eleventh Street
GRAND RAPIDS, MICH., U. S. A.

Mail Coupon for Free Sample

GRAND RAPIDS
HARDWARE COMPANY
ALL-STEEL SASH PULLEYS

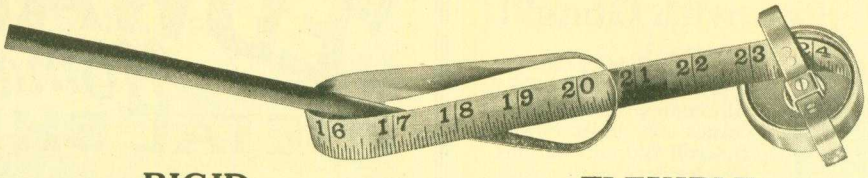
Mail Coupon For Free Sample

GRAND RAPIDS HARDWARE CO. Please send sample.
556 Eleventh St., Grand Rapids, Mich.
I am interested in the pulley illustrated.

NAME..... STREET..... CITY..... STATE.....

THE FARRAND RAPID RULE

A Modern Tool for Modern Craftsmen



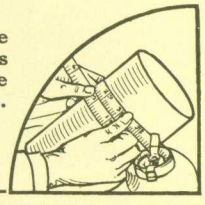
Six feet of Accuracy in a Neat, Vest-Pocket Cup

RIGID

Like a wooden rule, The Farrand Rapid Rule measures flat surfaces, from a few inches to six feet. Instantly available, released by slight pressure on brakes.

FLEXIBLE

Like a steel tape, The Farrand Rapid Rule measures circumferences. Because of its slight concavity and nickeled surface its markings can be read in dim corners.



Price $5.00 — Ask Your Dealer or Write

H. A. FARRAND, Mfr., Room 639A, 149 Broadway, New York City

Stucco House Spray-Painted in 4 Hours

Building Contractors PAINT *by* MACHINE

Quicker Work—Larger Profits

Spray-paint your buildings, it pays big! One man with a Binks Spray Painting Outfit can outpaint three or four brush painters. He can force paint into cracks and joints no brush can reach. Paint and lacquer lays with mechanical evenness. No dripping paint to be removed afterward.

You can Binks-Spray rough plaster, stucco, brick, wood—anything, no matter how rough. The 6-room Stucco house shown above was spray-painted in just four hours! How much would you pay or charge for that job? Do a little figuring yourself—then act. Every building contractor or painting contractor can pay for a Binks Spray Painting Outfit from the time saved on one big job. This outfit is serving scores of builders and contractors. It will pay you handsomely. Write for details and prices today.

BINKS SPRAY EQUIPMENT CO.
Dept. E, 3121 Carroll Ave., Chicago
Offices in Principal Cities

One Sure Way to Make Money On Any Construction Job

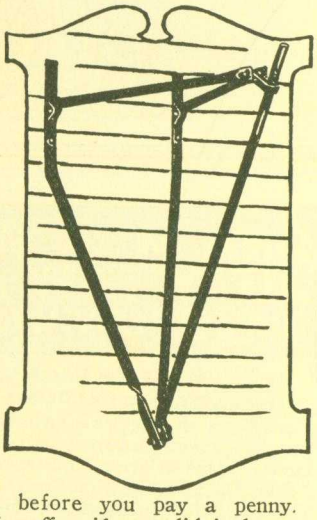
Use the

SAFE, SAVING, STURDY

Reliable Scaffold Brackets

Patented Oct. 4, 1910

No holes to plug after they are removed



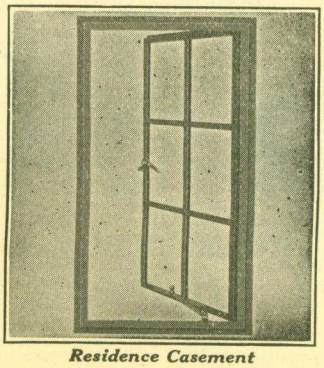
Stronger and cheaper than costly wooden scaffolding — quickly erected and quickly taken down, they are time and money savers on any job—wood, brick, stucco.

Thousands of other wise builders are using them—have used them for years. What they will save you will surprise you.

Figure on using them on that next job. Send for our catalog showing the various types and styles. Glad to ship C.O.D. with privilege of inspection, before you pay a penny. We wouldn't make this offer if we didn't know they are good.

ELITE MANUFACTURING CO., - Ashland, Ohio

THESE WINDOWS WILL MAKE A PROFIT!

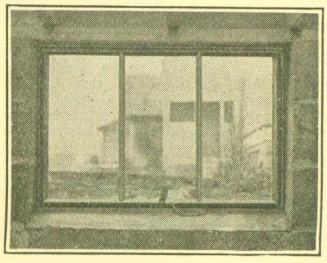


Residence Casement

DEALERS are making money in handling Bayley-Springfield Steel Windows. Designed for all types of buildings. Bayley construction features make for great strength and economical installation, and are the result of 45 years' experience in architectural ironwork. Carried in stock so that a dealer's turnover makes the Bayley line an attractive proposition.

THE WM. BAYLEY COMPANY
128 West North Street SPRINGFIELD, OHIO
Sales Offices and Warehouses in Principal Cities

Bayley-Springfield Steel Windows



Windows for Basements
The Bayley Window for basements in residences, apartments and other buildings. Fine for side walls in garages and small buildings. Cost no more than wood, yet give 50 per cent more light—made in four standard sizes.

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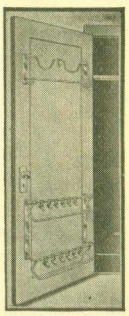
Cardinal Toggery Racks
Multiply Closet Space

.....So important to women renting or buying a home.....keep hats, shoes and toggery clean, orderly and within instant reach. A tremendous help to the housewife.

Cardinal Toggery Racks are indispensable in clubs, hotels or schools—a cardinal necessity in the small apartment.



A small investment but a big talking point for the renting agent. All metal, nickled, strong, fit any door. Get price and quantity discount today Write to

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Vacuum Convertible Sander

Growing in popularity every day, the new Reid-Way Vacuum Sander has revolutionized sanding practice. The revolving field motor, exclusive Reid-Way feature, has one moving part. No belts, chains, gears, no friction, no lost power. The only light weight sander using an induction motor—no commutator, no brushes to wear out. Extreme simplicity brings the price within the reach of all.

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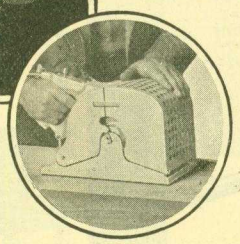

The REID-WAY is instantly convertible from floor surfacer to bench sander or jointer. New vacuum principle eliminates dust.

Light
Strong
Durable

The REID-WAY Company
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Top View of Roof Construction, National Democratic Convention Hall, Houston, Texas.

"LAMELLA"
(*PATENTED*)
Trussless ARCH ROOFS
QUICKLY AND ECONOMICALLY ERECTED
THOROUGHLY SAFE—VERY ATTRACTIVE

Good distribution of light, excellent acoustical conditions.

Adopted for auditoriums, dance hall, garages, warehouses, factories, etc., in all parts of the country. Spans up to 150′.

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Diamond Weatherstrip profits average from 33⅓% to 50% and more net. No investment in material until actual contracts are made.

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You can build up a permanent and profitable business that will be as large in volume as your sales capacity can make it.

MAIL COUPON TODAY!

We have over 468 territorial agents in 38 states and are adding to this number as we find proper representation. Write us giving your location. Get up into the higher paid class of men. Mail the coupon today.

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Gentlemen: Send me your Dealer's Proposition and tell me how to make money immediately.

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THE Fire That Heats the Home Heats a Plentiful Supply of HOT WATER

when the Excelso is connected to the steam or vapor heating boiler. It eliminates leaky fire pot coils; requires no attention.

In all sizes to supply hot water for one family or one hundred families.

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DIVISION OF AMERICAN RADIATOR COMPANY
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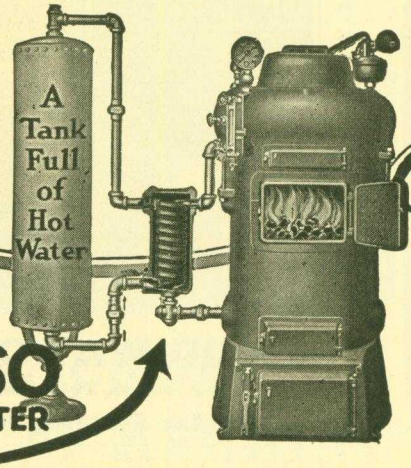
Sold and installed by plumbing and heating contractors everywhere.



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Double Your Income! *We Tell You How*

What Others Are Doing

H. G. YOUNG OF NEW JERSEY, CLEARED $2,700 ON AN INVESTMENT OF $97. A CONTRACTOR IN COLORADO CLEARED $333. A BUILDING SUPPLY DEALER IN OHIO CLEARED $590.

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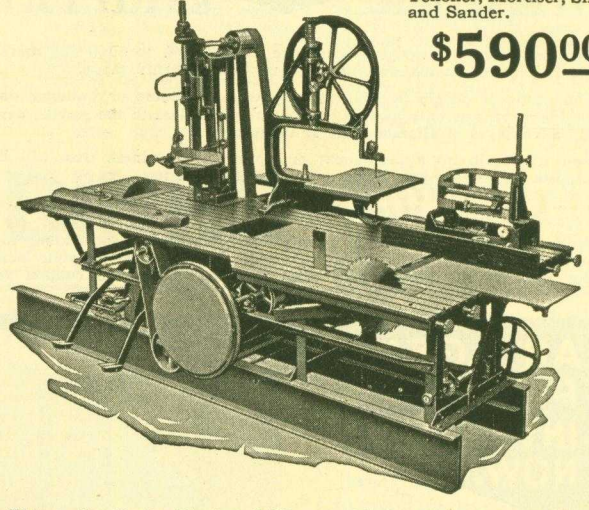
$590.00



This is the Parks Planing Mill Special, for years the biggest seller of the Parks line. Built for real work. Its low price, only $590, has helped many men get their start in business. With it a good man can do everything in woodworking. Saves two to six men's wages on every job. Helps make winning bids. Get the good jobs at better profit. Figure Parks-cost. Save labor cost. Get a Parks!

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THE WRIGHT RUBBER TILE

The Money Making Possibilities
—of—
WRIGHT RUBBER TILE In Your Town
—and—
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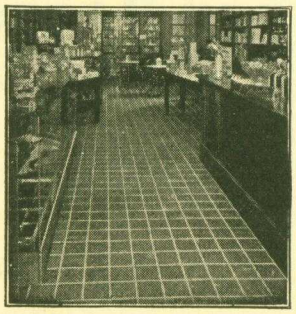

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Through years of practical experience our engineering and designing department has acquired a very thorough knowledge of flooring needs.

This experience is offered as a Free service to carpenters, contractors and builders.

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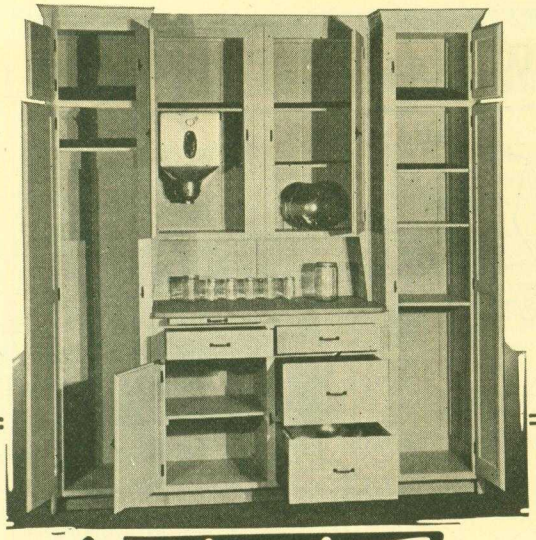


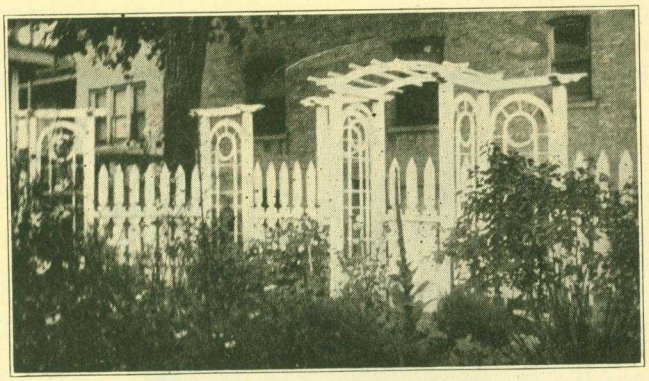
Vari-uni-cab

The VARI-UNI-CAB is a new idea in kitchen cabinets. Made up in units . . . made even more variable by a patented flexible panel which permits adaption to any kitchen requirement.

Units packed knock-down, in natural wood, with special rust resisting, nickelplated hardware included. Easily installed and permanent. A large number of patented features make VARI-UNI-CAB unique and adaptable.

This is only a small part of the VARI-UNI-CAB story. A line from you will bring information promptly and without obligation. WRITE TODAY!

VARIABLE UNIT CABINET CO.
Factory and General Office: Kokomo, Indiana



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Let us suggest the furniture for the garden, estate, summer resort, roadhouse, playground, etc.

We manufacture EZY KLING Trellises, Palmettos, Ornamental Wood Fences, Arches of all styles, Arbors of all descriptions, Benches, Tree Seats for around any tree, Bird Houses of Decorative Design, Stepping Stones for yards, Tufa Rockeries of all kinds, Cement Garden Furniture, Fountains and, in fact, any other kind of decoration wished. Dowel system of construction used.

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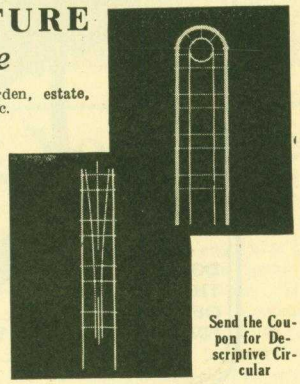

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Garden Furniture Co., Inc.
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Send the Coupon for Descriptive Circular

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If you want to know

—the amount of labor required for the various operations of a building construction job.

—the prices of labor and materials as a check on your estimates.

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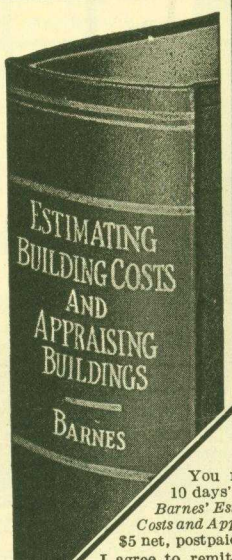

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From excavation and foundation work right through to the wiring and painting of the finished buildings, the book gives exactly the information needed to insure safety in the estimate from every point of view. It tells you how to calculate the cost of materials, of labor, of haulage, of overhead, of equipment, and so on. It gives valuable information on installations and material strengths.

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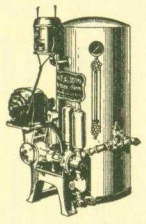

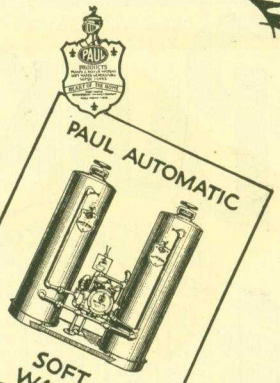

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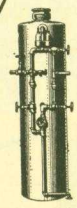
THE Water Service in the homes you sell is either an asset or a liability. If it's dependable, it brings you more customers who buy homes because their friends like the way you build them.

A Paul Water System or a Paul Water Softener is dependable and will help you sell more homes.



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BEAVER

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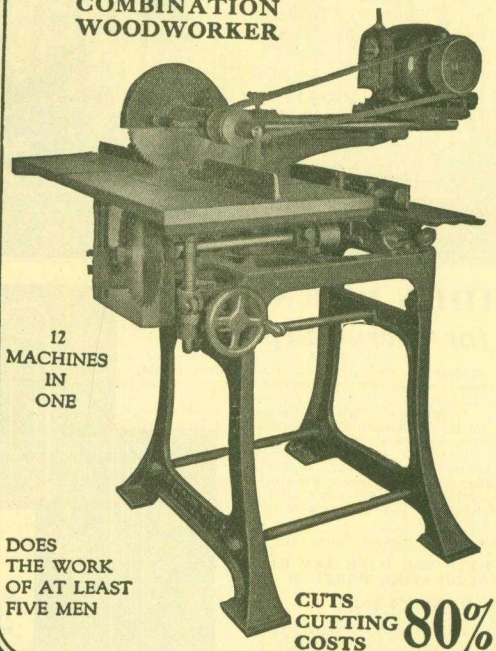

12 MACHINES IN ONE

DOES THE WORK OF AT LEAST FIVE MEN

CUTS CUTTING COSTS 80%

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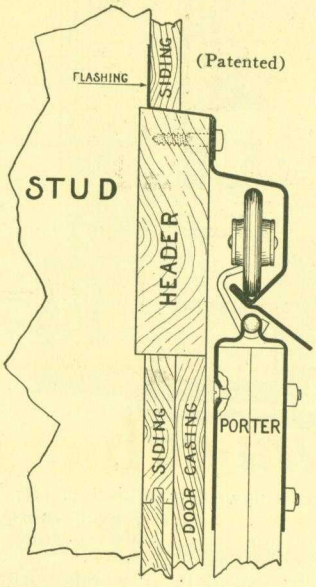
WHY THE V TRACK TREAD?



IT PROVIDES—

1. An absolutely uniform straight track.
2. Self-centering alignment for the hanger wheel.
3. Two point contact, with minimum friction.
4. Dirt and scale cannot interfere with wheel.
5. Absolute satisfaction for owner and operator.

What do these facts mean to you as a builder—Simply this—When you specify Porter HUMMER track and hangers, you insure a correct and satisfactory job for your customer; furthermore, being a **one-piece** track, the labor and skill required to install is a minimum—something else of interest to you, the contractor.

Remember the name—HUMMER—the track with the V tread.

If unable to secure locally, write us direct.

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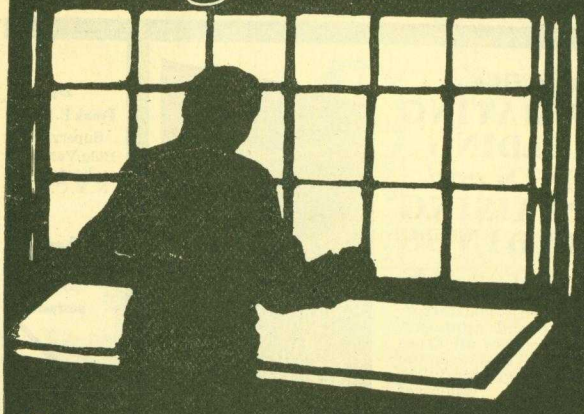

Graded according to the highest standards
Uniformity consistently maintained

A brand you — VERTICALLY DRAWN FLAT GLASS — ADAMSTON FLAT GLASS CO. — CLARKSBURG, W. VA. — can depend upon.

ADAMSTON FLAT GLASS COMPANY
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THE PLANKINTON IS A KEENAN SYSTEM HOTEL
JAMES F. KEENAN - President.

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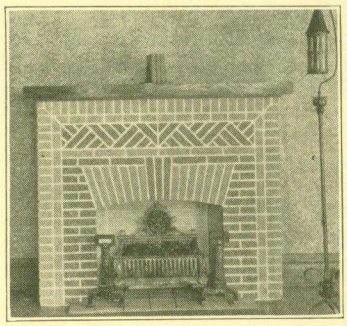
Pioneer Fireplace Equipment



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Ready Built Fireplaces

Built of BRICK—STONE and TILE.
Shipped from coast to coast—in over 100 beautiful designs—various colors.
Our latest catalog will be sent you free of charge. It shows and proves why Pioneer Fireplaces are better than others. You can pay more but you cannot buy better.

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Cost you less and are built better than any previously offered the building field. We are the originators of Readybuilt Fireplaces.

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Built in Chicago only

Write us today for full information and prices.
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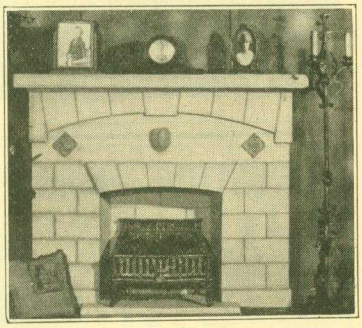

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Converts waste space into utmost efficiency or monthly income. The appeal to tenants, guest and owners of a fully equipped wardrobe permanently, built-in is instant and universal.

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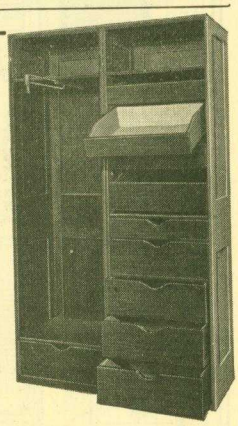
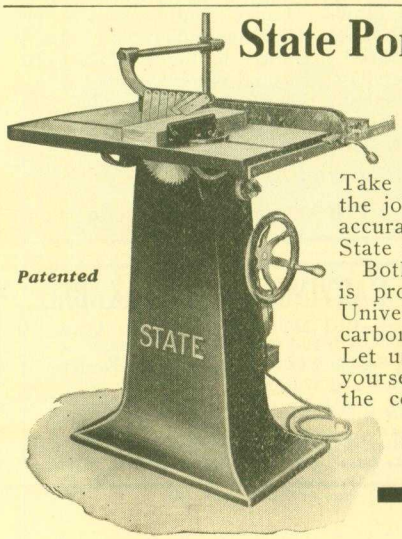


Unit A Unit B
Height 6'8" Width 4'
Depth 1'8"

State Portable Saw & Jointer



Patented

Save Time and Power by the Use of these Machines. Learn how you may own them Yourself at a Small Cost.

Take the State Universal Saw or Jointer to the job with you. See how economical and accurate you can finish a job by the use of State machines.

Both machines are easy to operate; a guard is provided assuring perfect safety. The Universal Saw will cut wood fibre, asbestos, carbon, soft metal, etc.

Let us tell you how to own these machines yourself at a small cost. Write today using the convenient coupon attached.

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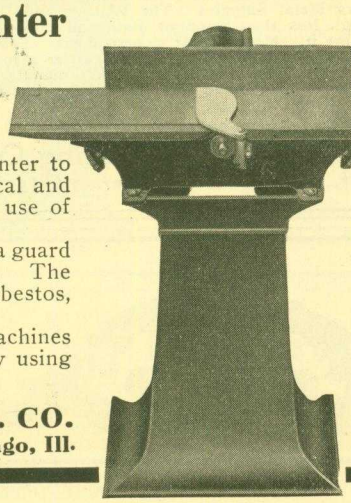

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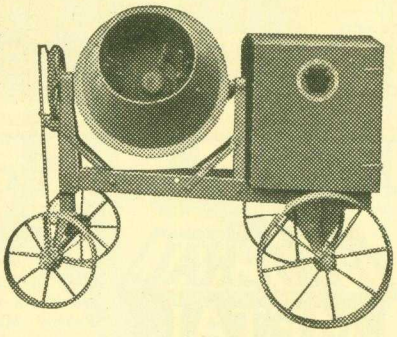
New 1928 Models now ready.

Distributors and dealers wanted



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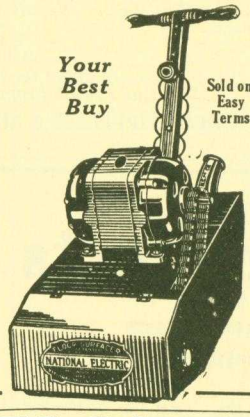

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Sold on Easy Terms

WORKS FASTER

The National Electric surfaces six times faster than is possible by hand, and two to three times faster than most machines.

A BETTER FINISH

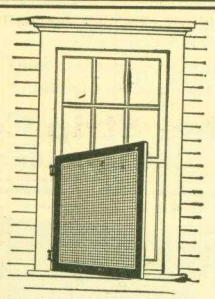
The National is built to stand up under constant use, and gives a better finish everywhere! Can't be equalled for old floors.

NO EXTRAS TO BUY

The National Electric comes to you complete with sufficient sandpaper to surface 5,000 sq. ft. of floors. You plug in the socket and go to work.

Write today for information on how you can make $20.00 to $45.00 a day with the National.

National Sanding Machine Co.
4567 Diversey Ave., Chicago, Ill.



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SCREENS
Give *Permanent* Satisfaction

Wherever Phenix Screens have been installed, in most of the large cities in the country, they have won enthusiastic indorsements. YOUR home, too, deserves the best—and that means PHENIX!

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Folding Stairs

Make better use of your attic

Ask for Booklet "A"

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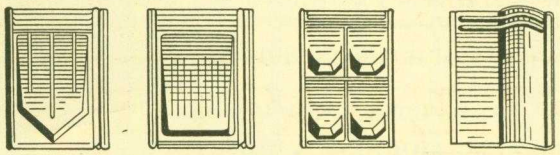

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The Belvedere Hotel

48th Street, West of Broadway, New York City—Times Square's Finest Hotel

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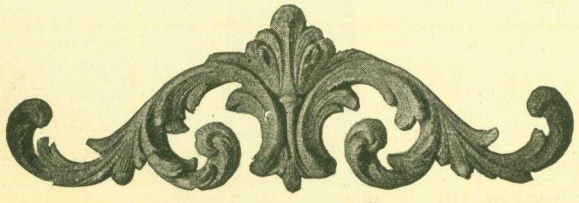

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Capitals, Pilasters, Drops, Scrolls, Corners, Heads, Period Designs.
Supplied in Oak, Mahogany and Walnut.

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14th Ave. and La fayette Blvd., Detroit, Mich.

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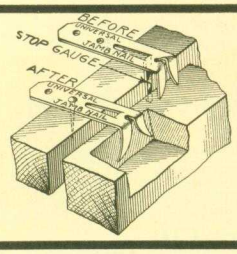

Self Clinching JAMB NAILS

AB 5-28

Set your door jambs with this new UNIVERSAL JAMB NAIL. It makes a perfect job, saves time, leaves no hammer marks or nail holes to putty up. They are easy to use. These Jamb Nails hold jamb squarely when building settles.

Used by Mills & Sons (the world's largest home builders) and hundreds of others.

SPECIAL—Try 1000 at our expense. Use some of them. If not satisfactory return what you have left. Those you used will cost you nothing. THREE SIZES: 1¾"—2¾"—3".

MAIL FREE TRIAL COUPON TODAY

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644 W. Randolph St, Chicago, Ill.

Send 1000 Universal Jamb Nails on approval

Name .....

Address .....

METAFORM

The Best Investment A Contractor Can Make

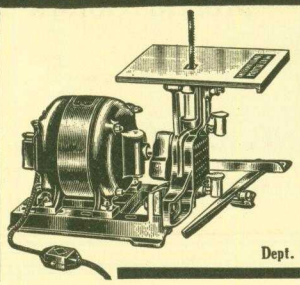
The Metaform system of shifting molds ahead, allows continuous pouring of concrete with a surprisingly small amount of equipment. A Metaform outfit will more than save its cost in one season. The savings after that are sheer net profit for year after year.

Tell us what classes of concrete work you do and we will send you complete Metaform information.

METAL FORMS CORPORATION
Milwaukee, Wisconsin

METAL FORM OUTFITS

Sawing Jobs Simplified



The International
MOTOR SAW

does everything a bench saw should do. Cross cutting, mitering, ripping, beveling, scroll work—inside and outside—all are accomplished without changing blades or parts. Press the button and start sawing. Ideal for carpenters, builders, shop and home owners, manual training, etc. Portable, weighing less than 50 pounds.

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THE SUPERIOR SPEEDSTER

This machine should save you 100 hours on every job.

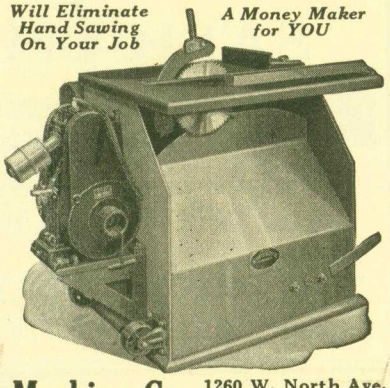
Because it is built with swinging arbor and tilting table it is the ideal machine for the builder. The *SPEEDSTER* may be powered with gasoline engine or electric motor and so can be used anywhere.

This machine is as easily moved as a wheelbarrow and so can always be moved to the work rather than bringing the work to it.

New bulletins describing the *SPEEDSTER* are ready—send for one.

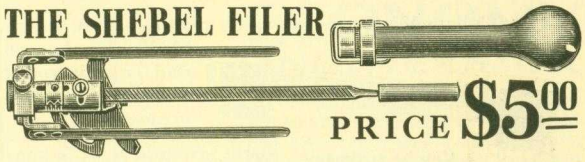
Will Eliminate Hand Sawing On Your Job

A Money Maker for YOU



Jones Superior Machine Co. 1260 W. North Ave. CHICAGO, ILL.

THE SHEBEL FILER



PRICE $5.00=

IF YOU USE A SAW

our literature will help you. Tells you all about filing. Explains the real difference between the two methods of filing, why a saw cuts and why it does not. How you may have a great variety of differently shaped teeth in your saw and not know it. Why uniform teeth mean nothing. Get this valuable information now. Send us your name and address.

We will mail you the Filer C. O. D. Parcel Post. Inspect it. Use it for a week. If it does not come up to your expectations return it at our expense. Your $5.00 will be cheerfully refunded immediately. Write today. Sold direct to users only.

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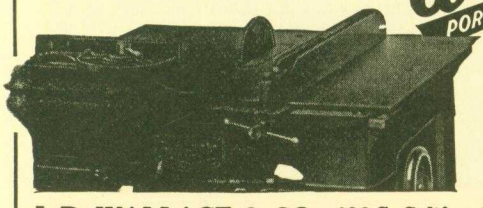
New! a bigger and better PORTABLE SAW for the builder

Another in that famous Line of **Wallace** PORTABLE MACHINES



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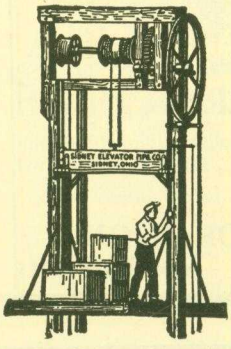

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Our Elevators are time and labor savers, easy to install.

State kind of elevator wanted, capacity, size of Platform, and overall height as well as platform travel.

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SIDNEY, OHIO

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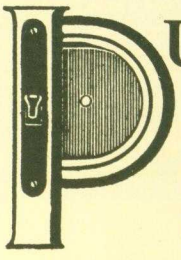

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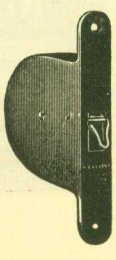

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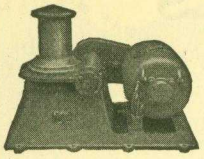

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Manufacturers of winches for all purposes. Power, Electric and Hand Winches. For Motor Trucks, Tractors and general purposes. Also Lifting Jacks, and Rollers for Lumber Trucks.

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Genuine Franklin Tunnel

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This work of excellence in Slate Roofing guarantees you to the absolute uniformity in quality found only in this roofing of the ages. Slate will outlast the building upon which they are laid. Their unexcelled beauty and quiet dignity are at once apparent in the home.

Will give you full information about

Genuine Franklin Tunnel Slate

Write to u for samples

SLATINGTON SLATE COMPANY

SLATINGTON · PENNSYLVANIA

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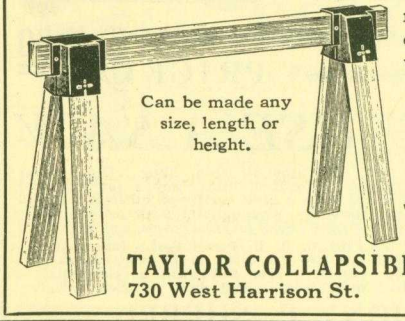
Taylor Collapsible Horses are easily taken apart or assembled. Can be carried or delivered to different jobs conveniently.



Can be made any size, length or height.

Will carry 8,600 pounds without a creak. No nails or braces.

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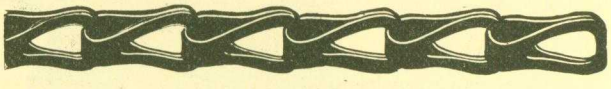

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With TRIMPAK three carpenters can completely trim a 6-Room house in one day.

TRIMPAK, the interior trim for doors and windows, comes packed in 2 cartons—one for the horizontal members and one for the verticals. All ready to fit. Made in every wood.

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BRACE & MACHINE

THE FINEST Tool Manufactured for important wood work.

Specially adapted for Hardwood operations; indispensable to the High Class Carpenter and for Cabinet and Pattern Works.

Manufactured by

THE PROGRESSIVE MFG. CO.

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Special Offer

A sample bit up to 1 inch in diameter will be mailed postage prepaid, upon receipt of 75c to any woodworker or carpenter.

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Made of rust-resisting TERNE PLATE STEEL

See this Bridging at your DEALERS

INITIAL TRIAL SHIPMENTS

To contractors at 2¾ cts per strip F.O.B. Muncie Ind

FREE SAMPLE ON REQUEST

MID-WEST METAL PRODUCTS CO · MUNCIE IND.

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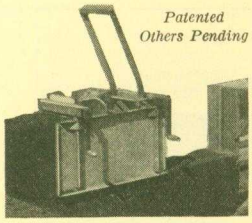

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The Improved Rapid Wall Builder

Builds solid or hollow reinforced walls of various thicknesses. Owing to its simplicity and great speed it is the most economical way to construct a fire-proof heavy load-bearing wall.

Particulars and prices will be sent you free of charge. Write today.

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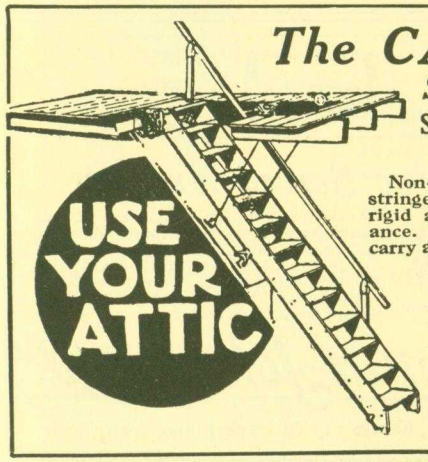

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Slides Up in the Ceiling When Not In Use

Non-collapsible; the stair stringers are all one piece, rigid and neat in appearance. Strong enough to carry a person on each step. Perfectly counterpoised by highly resilient springs enclosed in well finished drums.

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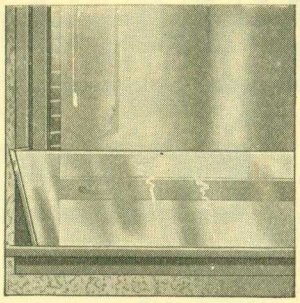

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Furnished in clear polished plate and all kinds of obscure glass. Brackets are made of a non-corrosive metal and are finished in all standard colors, including grained walnut and oak to match window sash.

Brackets are adapted to both steel and wood sash. The complete installation requires but a few minutes.

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Trucks: ¾-ton "Special Delivery", 1¼, 1½ and 2-ton Speed Trucks and Heavy-Duty Trucks up to 5-ton. Also McCormick-Deering Industrial Tractors. Write for information.

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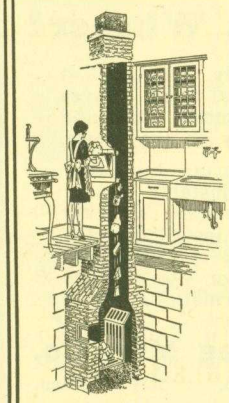

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--knows no speed laws

and insures greatest economy and maximum profit. Holds 78 staples at one loading. Reloads completely in 3 seconds.

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Is the only one that produces perfect concrete blocks.

ELIMINATES COMPETITION — INCREASES PROFITS.
No other block made like it, therefore you have no competition.

PRODUCTION COST LOW — PROFITS BIG.
Produces block, brick and tile for less than any other.
Your locality may still be open. Write today.

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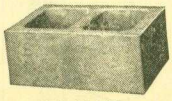

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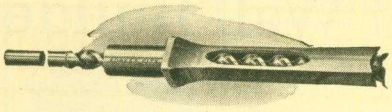

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High Quality Hollow Mortising and Wood Boring Tools that give service and satisfaction. Write for new catalog illustrating and describing our complete line of FOREST CITY tools.

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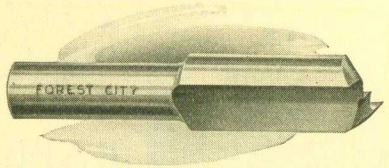
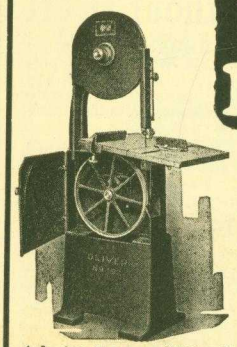


Router Bit No. 400



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Rips to 11" wide. Cross-cuts and miters up to 8". Table tilts 45 degrees to the right. Motor is mounted on the arbor. Operates from the light socket. Has all refinements, guards, etc., that have been developed for the larger "Oliver" Band Saws. It's a real production machine.

Ask for the new "Oliver" Junior Line Catalog which describes this and all other "Oliver" portable machines.

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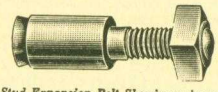
Expansive Screw Anchors



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Ackerman-Johnson expansive screw anchors hold a greater load than any other expansive fastening made. Installed in a fraction of the time needed in any other method. Recognized thruout the world as the best. They save more than their cost.

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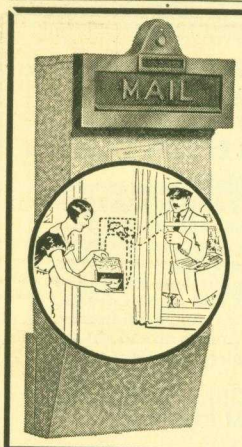

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Many styles, attractive face plates. Adjustable to any wall thickness. Quickly and easily installed. Inside cabinet doors in natural birch or oak. Write us for information.

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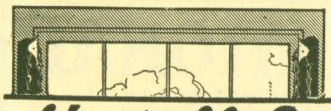

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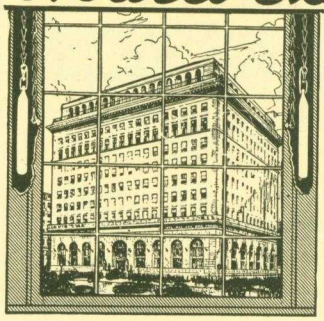
Hodell Sash Chain



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We have added to our factory a PARKERIZING PLANT, making our clothes posts and flag poles, absolutely RUST PROOF. Known by their "Ace of Clubs Top."

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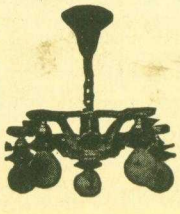

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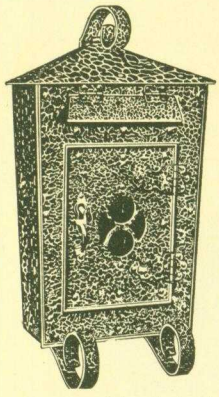

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Yet the retail price is only
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America's Leading Mail Box Manufacturers

IRON RAILINGS FOR EVERY PURPOSE

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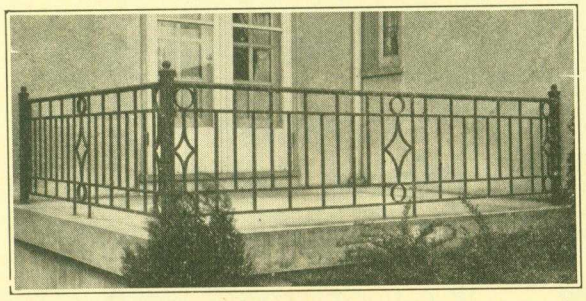

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for the shop . . . or on the job

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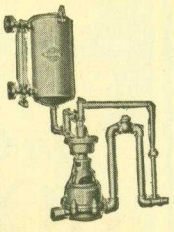
Crystal Clear and Pure SOFTWATER *at a turn of the Faucet*

At Only $97.50 Complete

For every use—in the laundry, the kitchen, the bathroom—crystal clear, chemically pure soft water answers every purpose. No imagination is required to appreciate the convenience, the adaptability of the new, all-automatic Bazark Water Softener. Priced within reach of the average income, the Bazark will fill a long felt need in every home. This automatic water softener has been designed for you. Investigate! Convince yourself of its possibilities, the convenience it affords—and then join the rapidly growing host of satisfied owners.



BAZARK Corporation, Rockford, Illinois

ALLMETAL WEATHERSTRIP

BUY IT LIKE LUMBER
INSTALL IT YOURSELF
SAVE ABOUT 50%

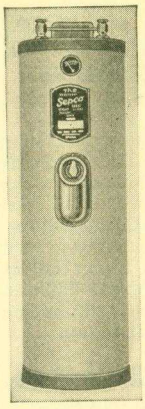
RETURN COUPON TODAY FOR SAMPLES

ALLMETAL WEATHERSTRIP CO.
231 West Illinois Street, Chicago, Ill.

Name.....

Address.....

City.....State.....



Sepco flameless water heaters

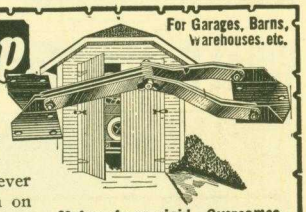
THE NEW METHOD—WITHOUT FLAMES OR FIRE HAZARD. WITHOUT FUMES, MUSS OR FUSS, WITH THE SAME EASE AS DONE IN OVER 30,000 OF HOMES IN THE UNITED STATES. THE **SEPCO** ELECTRIC ENDORSED BY POWER COMPANIES WILL BE A REVELATION TO YOU IN COMFORT AND ECONOMY.

We will mail full details on equipping any home with SEPCO. You'll want to know the cost, conveniences, etc., so write us today for more information.

AUTOMATIC ELECTRIC HEATER CO.
1505 Race St. Philadelphia, Pa.

Cyclone Door Stop

For Garages, Barns, Warehouses, etc.

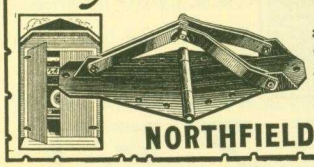


For New or Old Doors

Makes doors stay put. Stops doors from flapping, slamming and swinging. Simple. Easily attached. Never get out of order. Adjustable tension on powerful friction action. Fits all doors. Thousands in use.

Makes doors rigid. Overcomes bottom vibration troubles, the fault of top attached stops.

Cyclone Door Stop Hinge *For New Doors*



and bracing old doors. Does double duty. A heavy hinge plus an adjustable door stop. Write for circular and dealer's introducing proposition.

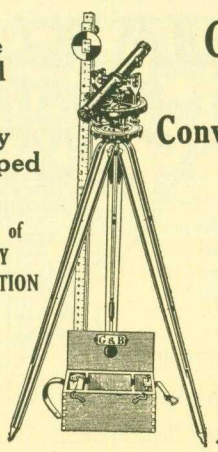
NORTHFIELD IRON CO. 400 Nico St. Northfield, Minn.

Free Trial

Fully Equipped

LEVELS of EVERY DESCRIPTION

Low Prices



G & B Model 45

Convertible Y Level for Universal Service

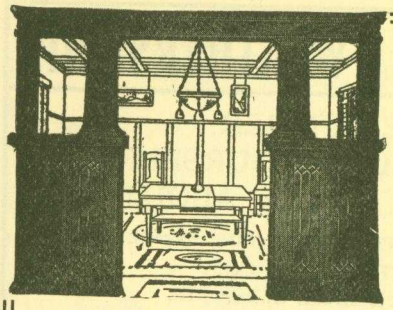
GEIER & BLUHM, Inc., 670 Rivers St., Troy, N. Y.

May, 1928

Please mail me free information.

Name.....

Address.....



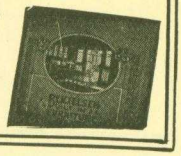
BUILT-IN WOODWORK

Adds the touch of Refinement. Beauty that increases renting and selling values.

SEE OUR OFFERS

Bookcase Colonnades—Sideboards, Medicine Cabinets, etc., are of Distinctive Design and give living comfort to any home.

Send for Free Catalog

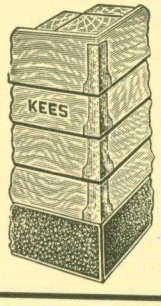


STEPHEN BILEK CO.
2119 South Troy Street : CHICAGO

MORE SALES - MORE PROFITS *With these* KEES *Products*

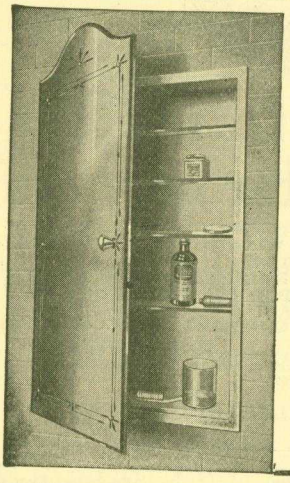
Roller Skates
Hardware Specialties
Cornhusking Goods
Builders Hardware
Ice Skates

Building Corners



They fit perfectly, making accurate angles and bends; give the clean cut appearance of a mitred joint. Paint sticks; no weathering. After painting, the corners can hardly be noticed. Write for free sample and prices.

F. D. KEES MFG. CO.
Box 93 Beatrice, Neb.



Something Finer!

A Hidden Medicine Cabinet —A Fine Venetian Mirror

Here you have the elegance of a decorative mirror. The medicine cabinet is hidden. No hinges visible. The back of the mirror is of steel finished in hand-rubbed walnut. The cabinet is of electrically welded steel, white enameled. Every builder should have the complete Bulletin of our comprehensive De Luxe line on hand. Write for it today.

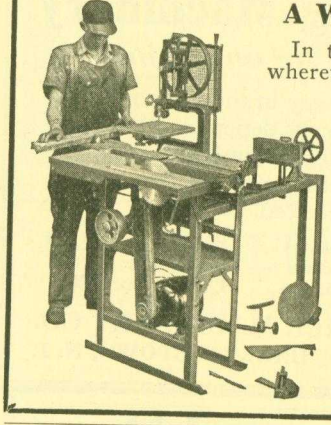
Majestic Steel Cabinet Co.
Household Steel Cabinet Headquarters
4211 Belle Plaine Ave. Chicago

What Contractor Has Money to Burn?

You would never sink money in one wood mixing box after another and put up with the inconveniences, delays, wasted material, etc., if you knew how little HELTZEL steel mixing boxes cost. Perfectly smooth bottom and sides. Nothing to catch the mixing tools. Last indefinitely. Three sizes. Write for prices.

The Heltzel Steel Form & Iron Company
Warren, Ohio

HELTZEL

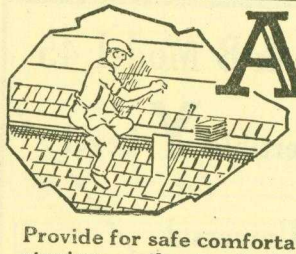


A Workshop at Your Service

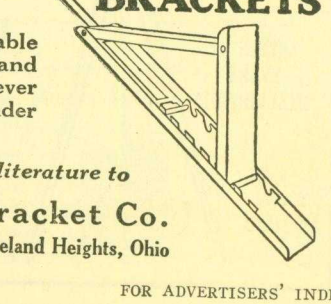
In the shop or out on the job, wherever your work may take you, the Multiplex is always available. Every unit is ready for instant use. No other equipment is necessary when the Multiplex is on the job. This Kornau Woodworker has all the units you will need for woodworking. Built in two sizes for light and heavy work.

Write for information

KORNAU MACHINE COMPANY
Gulow and Vandalia Sts., Cincinnati, O.
"A Tool for Every Purpose"



AJAX *folding metal* SHEATHING AND ROOFING BRACKETS



Provide for safe comfortable staging, easily attached and detached. The quickest ever—safe as the earth under your feet.

Send for descriptive literature to

Ajax Building Bracket Co.
1551 Rydal-Mount Rd., Cleveland Heights, Ohio

Where "Good Fellows Get Together"

"In Cleveland it's the Hollenden" is more than a slogan. It is a terse description of the attitude of thousands of discriminating travelers. 1050 comfortable rooms all with homelike surroundings, courteous service and good food is the reason. Make the Hotel Hollenden your headquarters when in Cleveland. Rates, $3.00 and upwards.

In Cleveland-it's The
HOLLENDEN

Theo. De Witt, Manager
Superior Avenue at East Sixth Street

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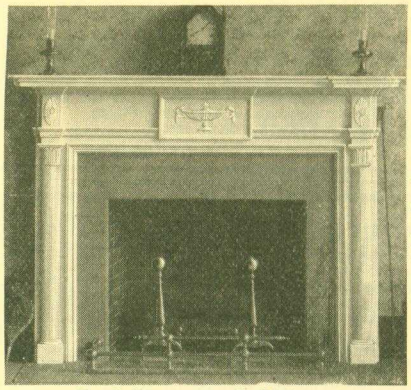


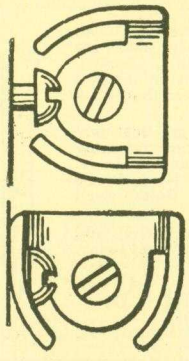
Each Distinctively Different
We use Over 55 Designs—

Period Mantel-Pieces to Harmonize with any Interior

A correctly designed mantel is the character giving feature of any room. And wood mantel-pieces because of their wide range of design and various treatments of finish, lend themselves to all schemes of interior decoration. Literature sent on request.

THE BRECHER Co., Inc.
443 W. Jefferson St.
Louisville, Ky.

BLECK'S SCREEN and SASH LOCKS

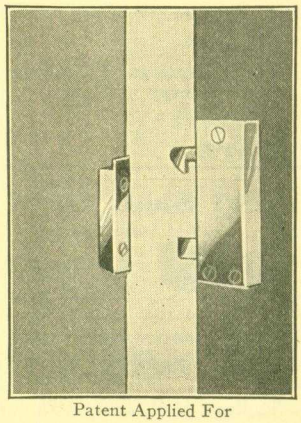


This "Lock" eliminates all screen troubles.

¼ turn of lock on inside of screen, opposite old button, locks screen to frame. Full size screens are installed or removed on all stories inside of a building. The convenience, time saved and protection warrant change to Bleck's Screen Locks It retails at 5c. Ask your dealer for supply.

Protected with patents in U. S. and Canada

HERMAN BLECK
Inventor - Manufacturer
415 Eaton St. Hammond, Ind.



Patent Applied For

HAGSTROM SECRET DOOR LATCH

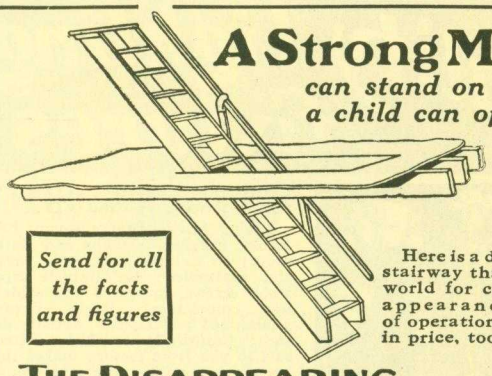
Designed especially for concealed panels. May also be used on doors, instead of ordinary latch. When door is closed no hardware is visible. To close push lightly on door—to open push hard. Door moves less than ⅛". Shrinking or swelling will not affect this latch as long as door swings free.

Latch may be screwed right on door jamb. Strike screwed on door without cutting. Built in five sizes. Anyone can apply this latch in less than ten minutes. If your jobber cannot supply you address Dept. A for literature and prices.

Hagstrom Mfg. Co., Glen Cove, N. Y.

A Strong Man~

can stand on it—
a child can operate it



Slides Up Into Ceiling When Not In Use

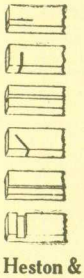
Send for all the facts and figures

Here is a disappearing stairway that beats the world for convenience, appearance and ease of operation. Moderate in price, too.

THE DISAPPEARING STAIRWAY CO. AKRON OHIO

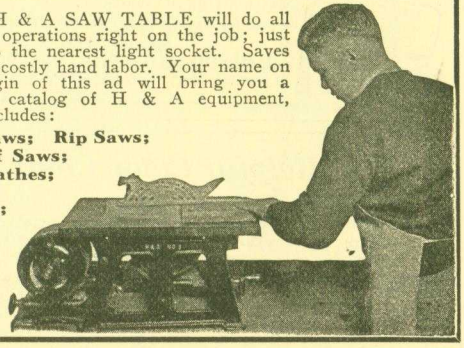
Speed Up These Jobs—

Cut Your Labor Costs in Half!



THE H & A SAW TABLE will do all these operations right on the job; just plug into the nearest light socket. Saves hours of costly hand labor. Your name on the margin of this ad will bring you a complete catalog of H & A equipment, which includes:

Band Saws; Rip Saws;
Cut-Off Saws;
Wood Lathes;
Bench Jointers;
Scroll Saws.



Heston & Anderson
205 Western Ave.
FAIRFIELD, IOWA

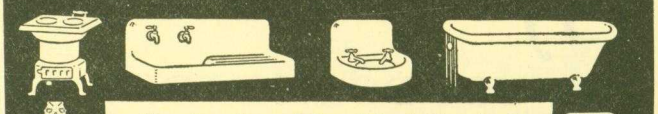
RUBBER TILE FLOORING

A profitable business with "REAL RUBBER" tile is open to contractors, builders and floor layers. The field is new and unlimited. Best season now starting. Our product has many superior features and price is right. Our full cooperation makes success assured. Sell from samples.

Write today for particulars, samples and choice of territory.

J. D. STRUTZEL RUBBER CO.
Joliet, Illinois **Dept. C.**

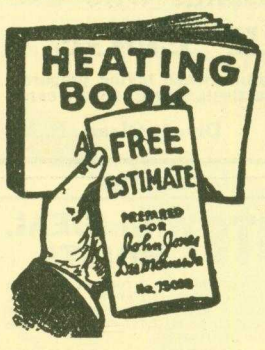
PLUMBING-HEATING



Contractors Plumbing Catalog

Write for FREE catalog showing everything in highest grade plumbing and heating supplies at special wholesale prices to contractors and builders. It shows where you can cut down on the high cost of plumbing. *Write today.*

JOHNSON
PLUMBING SUPPLY CO.
3640-42 S. Halsted St., Chicago

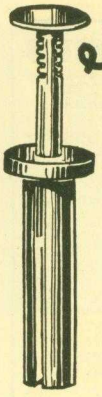


Ask for Agency Offer and Catalog

All Kinds of Heating—Hot Water—Steam—Hot Air—Pipeless—Pipe—Sewage Disposal—Water Supply—Plumbing—Low Prices.

ANDREWS HEATING CO.
1590 Heating Bldg.
MINNEAPOLIS, MINN.

ANDREWS HEATING COMPANY
Please Send Catalog and Agents Offer
Name.....
Address.....
Town.....
State.....



Expansion Nail

Send for Samples

The new Chicago Expansion Nail was developed primarily for holding wooden strips in place for fastening carpet in the new Stevens Hotel, Chicago. In only one operation the nail becomes an integral part of the concrete. Cheaper and better than driving in wooden plugs.

The Chicago CONCRETE Nail is practical and efficient. To be used only as a temporary fastening and later replaced with Chicago expansion products. We also manufacture Expansion Bolts, Nuts, Bridle Rings, Conduit Hangers and Toggle Bolts of all kinds.

Let us send you a sample Expansion Nail and Concrete Nail. Write for Catalog and Samples today.

Chicago Expansion Bolt Co.
126½ South Clinton Street, Chicago, Ill.

Concrete Nail

BE INDEPENDENT

Start a Business of Your Own

Atlas Weatherstrips are in Great Demand

Every home apartment house, school office building, etc., is a prospect for Atlas Metal Weatherstrips. Just a little effort on your part will assure you a handsome income. Write us today for agency proposition.

ATLAS WEATHERSTRIP CO.
3943 W. 16th St. Chicago, Ill.

Colonial Mirror Sconces

Fine reproductions made by highly trained craftsmen in various designs and sizes.

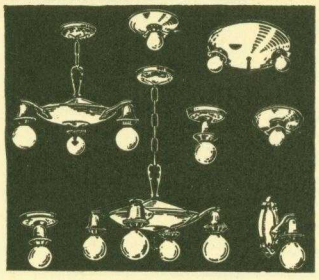
Artistic lanterns, antique reproductions in hand-wrought iron, brass, leaded glass, imported from Spain, Germany, etc. When asking for illustrations, kindly state particulars.

We do not carry a general line of lighting fixtures but specialize in the above.

FAIRYLAND CO., Dept. AB, 793 No. Oak Drive, Bx., N. Y.

Sconce No. 103 Oval, 6" x 9", wired complete, $7.50 postpaid.

quality lighting fixtures



Complete Outfit for 5-Room House $10

Living Room, Dining Room, Bed Room, Porches, Kitchen and Bathroom; all fixtures completely wired and assembled; we furnish tape, wood screws, fasteners and solderless connection. Every fixture guaranteed and tested. Artistic design; beautifully finished. Direct sale to you from factory makes this low price possible. We save you ⅛ to ½ on lighting fixtures.

Write for complete catalog.

BAB'S LIGHTING FIXTURE MFG. CO.
4204 Hastings Street Detroit, Michigan

THE SLATINGTON-BANGOR SLATE SYNDICATE, Inc.

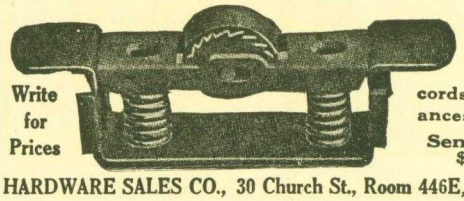
SLATINGTON, PENNA.

Miners and Shippers of

Black Roofing Slate — Natural Blackboard
Structural Slate — Electrical Slate
and Slate Products

Write us for prices

The Most Economical Sash Holder



Write for Prices

It Is Automatic

No Sash weights, cords, pulleys or balances necessary.

Send For Trial Set $1.25 Prepaid

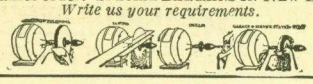
HARDWARE SALES CO., 30 Church St., Room 446E, NEW YORK CITY

MAKES A COMPLETE MACHINE SHOP

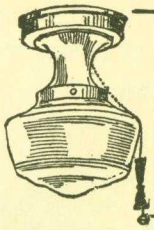
Evry-Use Electric Motor Attachment

An original, practical and substantial tool. Fastens directly on motor shaft—no pulleys or belts necessary. Holds grindstones, buffs, saws, wire scratch brushes, drills, etc. Serves as pulley. Made to fit ⅜, ½, ⅝ inch shafts. State size. Postage prepaid if remittance accompanies order. SPECIAL BARGAINS IN NEW ELECTRIC MOTORS.

Write us your requirements.



United Electric Motor Company
178-Y Centre St., New York



Complete Kitchen UNITS $1.87 VAL. $3.50

Triple White Enameled Kitchen or Bathroom Unit, 1 light completely wired with pull chain socket and extra string attachment.

Send for our special cut rate Lighting Fixture Catalog.

Special Prices to Builders

UNITED LIGHTING FIXTURE CO., Inc.
83 Flatbush Ave., Brooklyn, New York, N. Y., Dept. A. B.

ATTENTION—Metal Weatherstrippers!

Our very low overhead enables us to guarantee you a substantial saving. 200 ft. of 1¼ in. BIQUE Spring Bronze for $5.90. Plain and corrugated Ribstrips priced in proportion.

Attractive proposition to responsible agents. Write for information today.

BIQUE METAL WEATHERSTRIPPING & CAULKING
Superior 7744-7745 176 West Grand Ave., Chicago, Ill.

Helpful Color Chart Free

The beautiful new ALABAX folder, showing ALABAX brackets and receptacles in full colors and colored stripings, will prove of value in arranging harmonious *lighting fixtures.*

Write us for your free copy

PASS & SEYMOUR, INC.
Solvay Station Syracuse, N. Y.

JOIN TO-DAY thousands who use MILLER DRIP EDGE

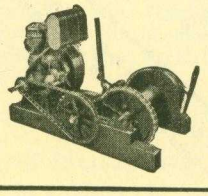
They like it. You will enjoy it's results when laying prepared roofings or shingles. Samples and particulars free. Send a card.

MILLER & GLEASON, Div. 1, Olean, N. Y.

If

YOU DO NOT FIND WHAT YOU WANT

in the AMERICAN BUILDER, *write us* and we will try to get it for you.



PROFITS With IDEAL HOISTS

Save money wherever there is a rope or cable to pull. Made in two sizes, 1,200 to 2,000 lbs. capacity. Reversible and non-reversible—single and double drum, with or without engine. Write today for complete information.

UNIVERSAL HOIST & MFG. CO.
196 East 14th St. Cedar Falls, Iowa

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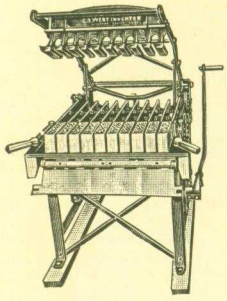
TAPESTRY BRICK MACHINE



The Wert Tapestry Brick Machine is a Money Maker for the CONTRACTOR and BUILDER. Are built to be operated by either Hand or Power. I also manufacture a Two, and a Three Core Block Machine, operated by either Hand or Power. A Chimney Brick or Block Machine. Well, Cistern and Silo. Molds. Hollow Wall Brick Machine. A Floor Tile Machine. Before purchasing any of the above line of concrete machinery, Investigate the WERT LINE.

Write for Free Catalog No. 8

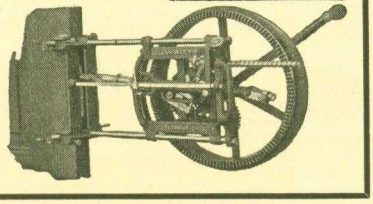
C. S. WERT, 602 N. Main St., Kendallville, Ind.

Keep it in Your Pocket!

For every $6 you pay a man for cutting mortises with brace and chisel you're actually *losing* $5! The same man and a Champion Mortiser can cut the same number of mortises for $1, or in one sixth the time. Stop this loss.

Get a Champion and keep that $5 in your pocket. Hundreds of contractors everywhere are using the Champion. Many have made it pay for itself in two days. Will easily cut 12 perfect sided, smooth-bottomed mortises an hour in any wood and any size. Weighs only 25 lbs. Try it on our 15-day free trial offer. Money back guarantee. Send for free literature.

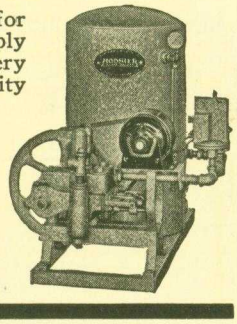
The CHAMPION MORTISER



Colgan Machinery & Supply Co.
405 Hayden Bldg., Columbus, Ohio.

SPECIFY HOOSIER WATER SERVICE

There is a Hoosier Water Service for every requirement of the water supply for homes in subdivisions, and for every water source on power. Provides city water convenience at less than city water cost. Inside-and-out protection, by the famous GALVAZINK Coating and new features of superiority assure many years of perfect satisfaction.



FLINT AND WALLING MFG. CO.
65 Oak Street KENDALLVILLE, IND.

"There's More Gold in Floors" than in the Hills

with an Electric

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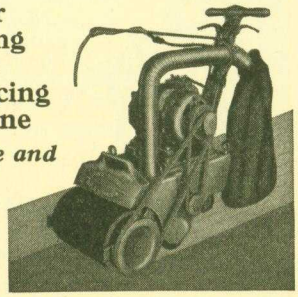

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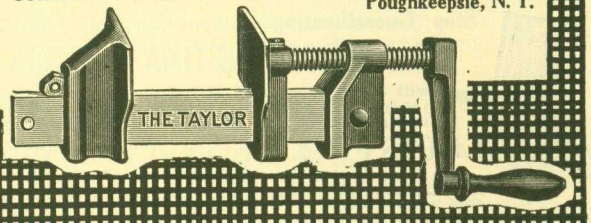

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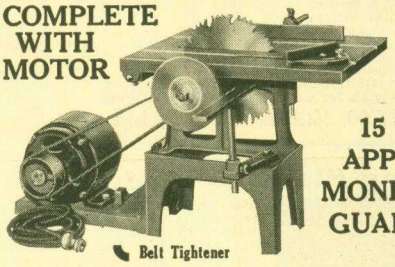

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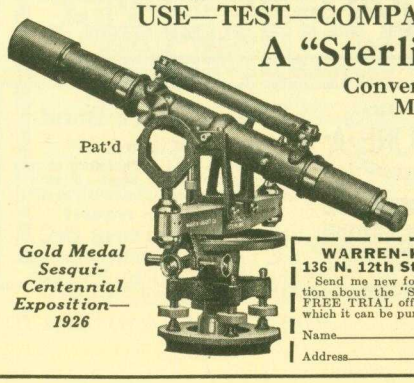

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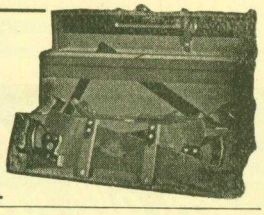

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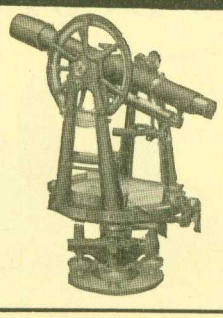

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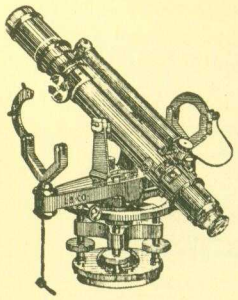

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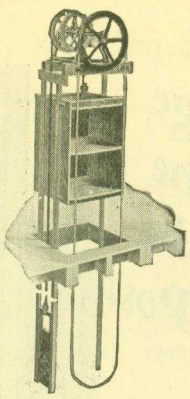

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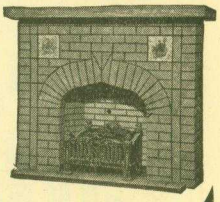

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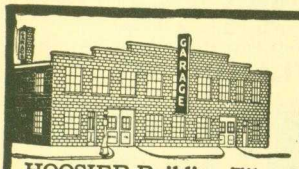

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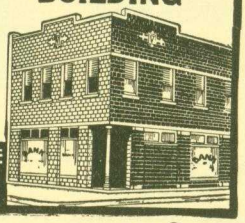

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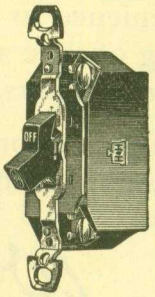

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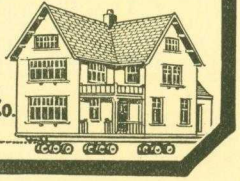

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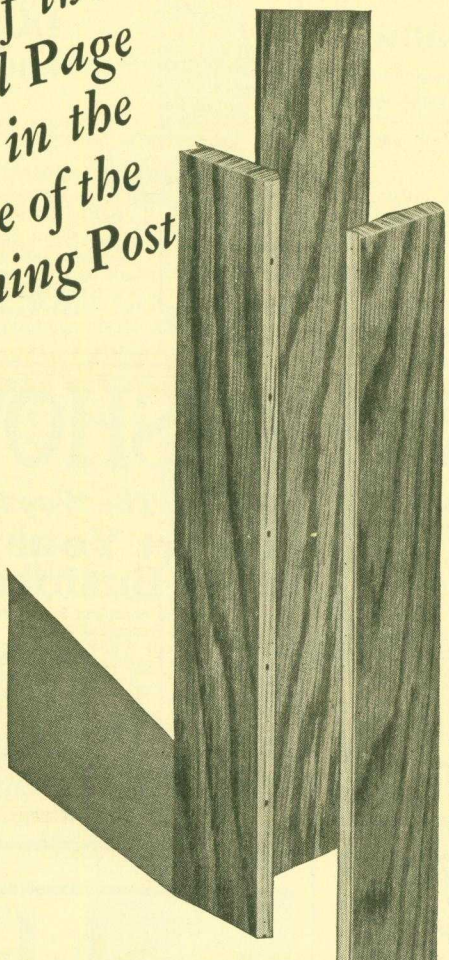

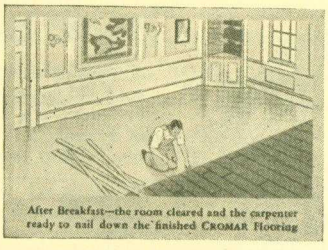

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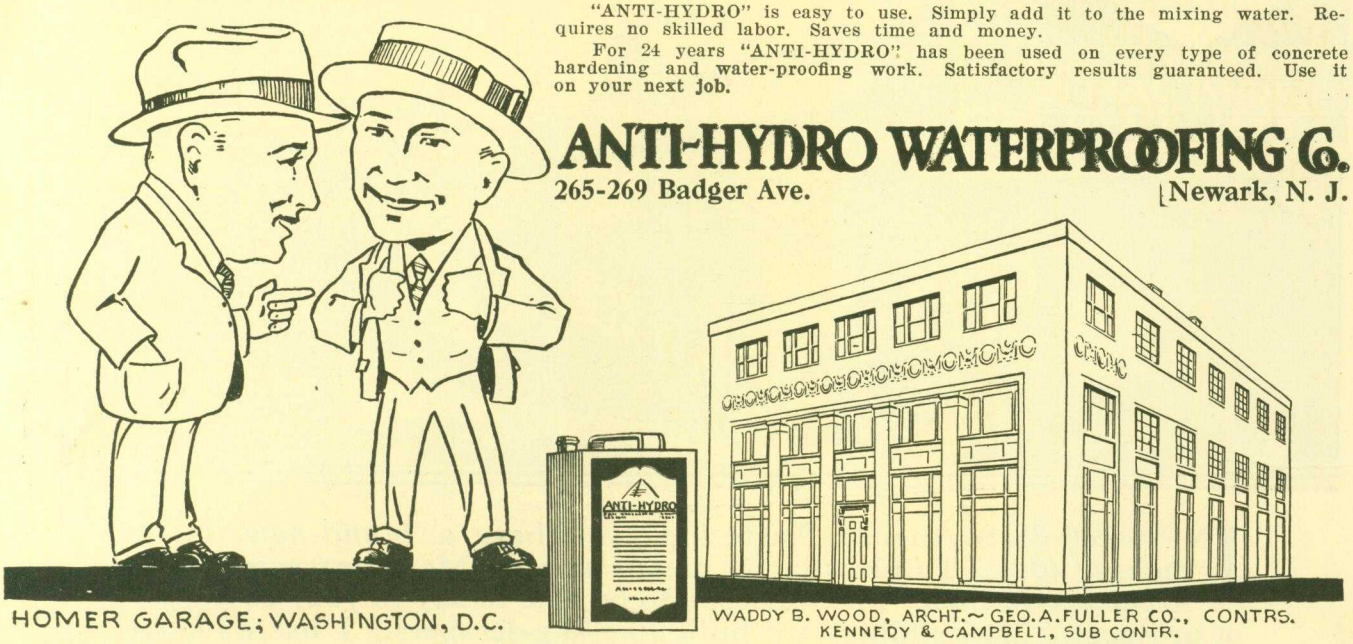

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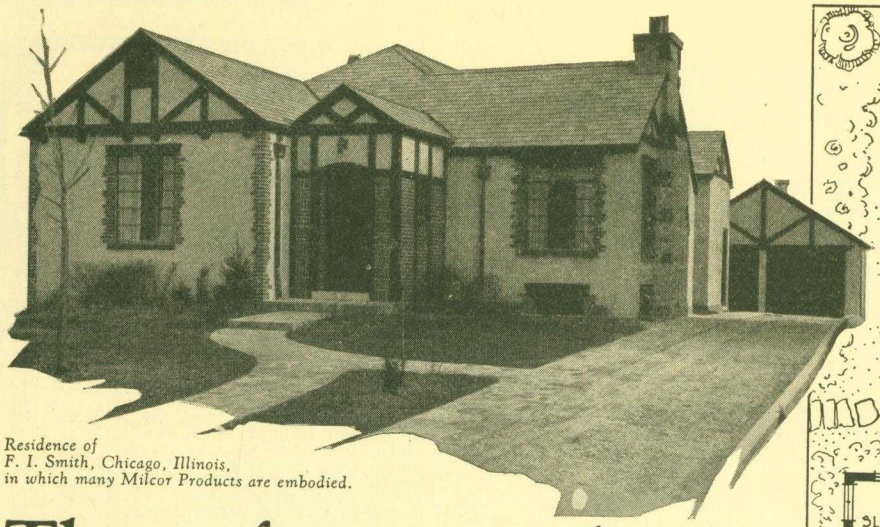
NOTICE TO ADVERTISERS

Forms for the June number of the American Builder will close promptly on May 10. New Copy, changes and orders for omissions of advertisements must reach our business office, 1827 Prairie Ave., Chicago, not later than the above date. If new copy is not received by the 10th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts.

AMERICAN BUILDER.



Residence of
F. I. Smith, Chicago, Illinois,
in which many Milcor Products are embodied.

The *safe* way to build

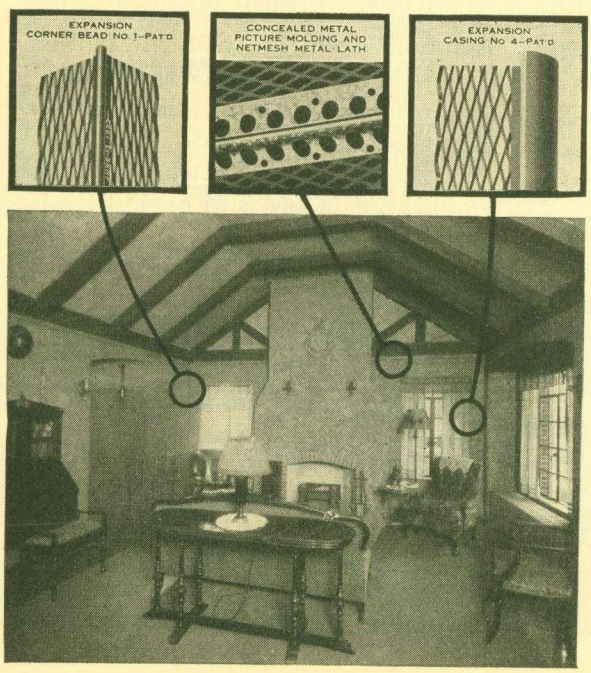
BEFORE Mr. Smith decided on details of construction, he wrote for Milcor literature and *studied* it. He recognized the common sense of plastering on Milcor metal lath as protection against fire, cracks and undue depreciation . . . . he liked the modern style which Milcor Expansion Casings offered, instead of wooden trim for doors... he saw how he could eliminate wooden window trim and greatly improve the appearance of his rooms by using Milcor Bull Nose Expansion Corner Bead . . . . he wanted Milcor Concealed Metal Picture Molding as soon as he saw it!

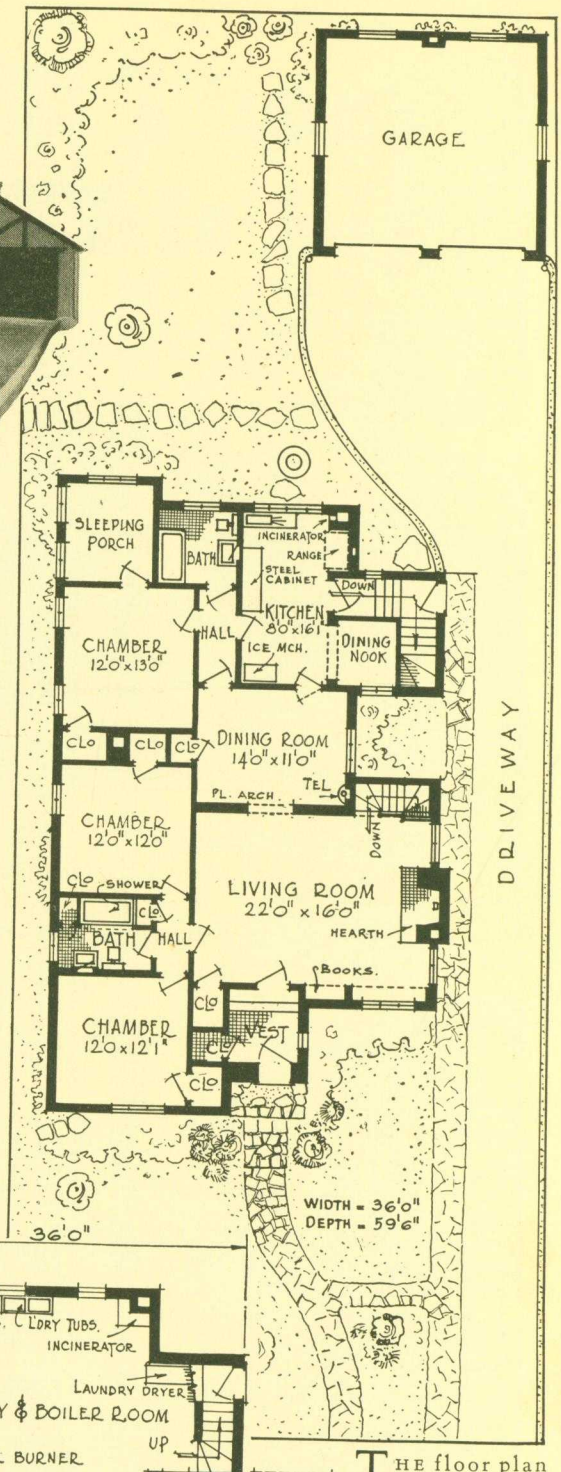
These unique, practical Milcor Products added practically nothing to the cost of Mr. Smith's home. But they added a great deal of real value and satisfaction. It's the safe way to build. Consult Milcor.

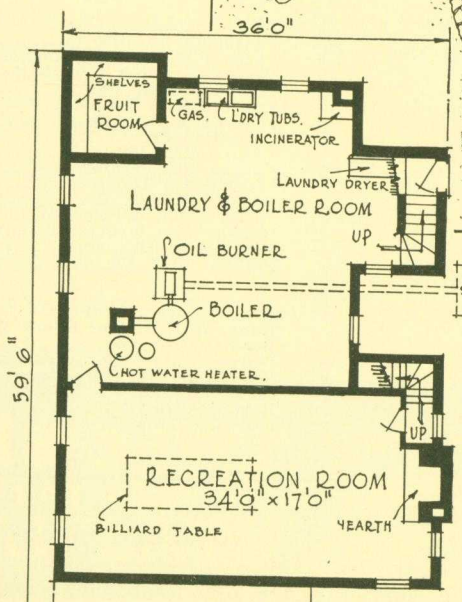
MILWAUKEE CORRUGATING COMPANY, *Milwaukee, Wis.*
CHICAGO, ILL. KANSAS CITY, MO. LA CROSSE, WIS.

MILCOR
METAL BUILDING PRODUCTS

Some idea of the simplicity, correctness and sense of quality expressed in such subtly pleasing manner through Milcor Products in the Smith bungalow is conveyed in this picture of the Living Room.







THE floor plan and landscaping of the property on which this bungalow was built, show the possibilities of careful planning for a comparatively narrow lot. Two-inch solid partitions on Milcor metal lath often help solve problems difficult to handle with ordinary, thick partitions. Investigate the possibilities of increasing room space on the same building area by using solid partitions on Milcor metal lath.

Send for These Charming Books

Two Milcor Books you will enjoy are these: "Modern Modes in Better Plastering" and "Safe Roofs". They are loaded with fine ideas. Whatever your interest may be in buildings of any type, from homes to skyscrapers, you'll find these books valuable. *We'll send them . . . . gladly . . . . on request, no charge.*

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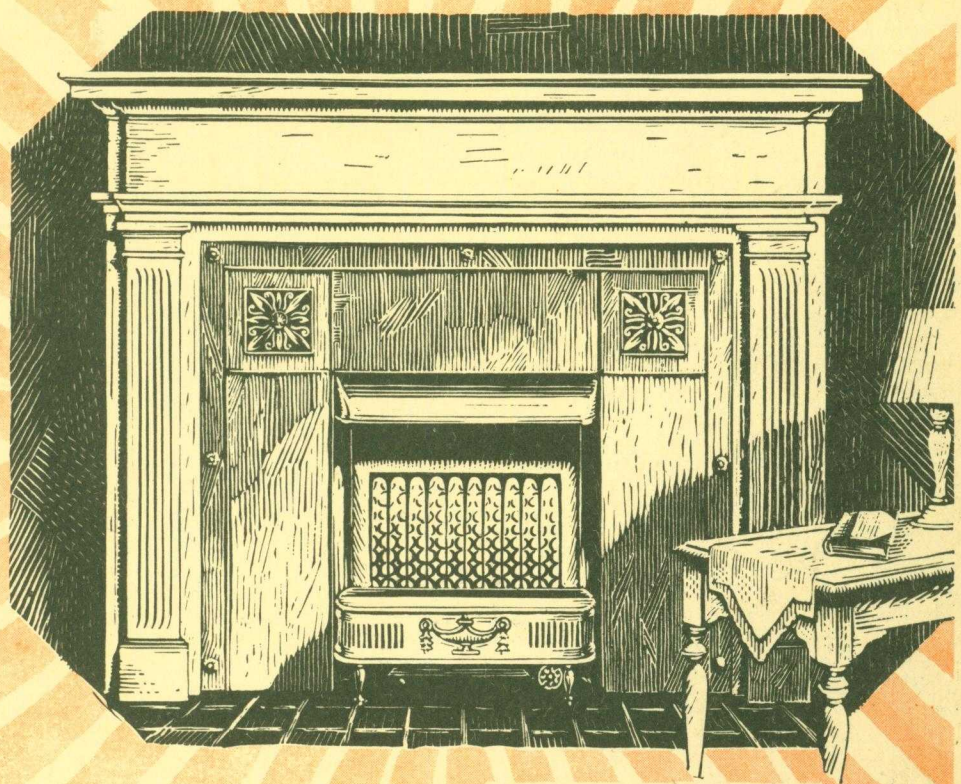
The HUMPHREY Radiantfire Mantel



$98.00 complete

Every House a Real *Home!*

When you tell your clients that they can have a beautiful, efficient fireplace in that new home for $98.00 extra (or $105.00 in mahogany)—you give them a glad surprise!

This complete unit—Mantel, paneling, hood and Radiantfire—is planned to make Humphrey Heating available without costly fireplace construction, and for any room where gas is available, no matter how small or simple the home.

The Radiantfire, paneling, hood and fender are of stainless steel, in bright finish. The wooden mantel comes in white or mahogany finish; the whole effect is of classic simplicity and charm.

And of course your clients know what superior heat they get with Humphrey Radiantfire—clean, healthful, odorless—and all at the touch of a match. In planning any new home or remodeling, it is best to take into account the value of a Radiantfire for drafty corners or out-of-the-way rooms. Many models, for existing fireplace openings, or vented types for open room installation. Write for details.

No smoke—No odor. No ashes—No dust

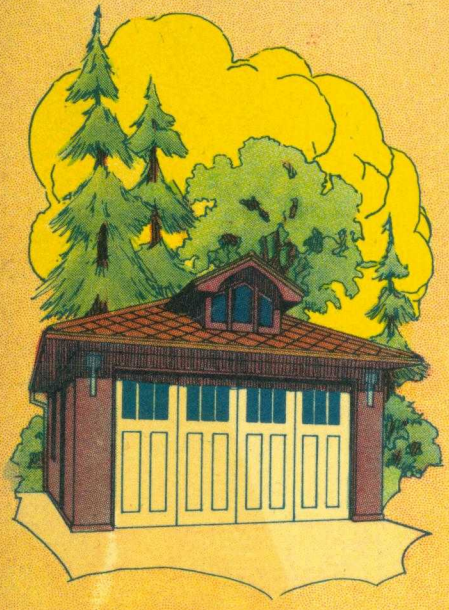
GENERAL GAS LIGHT COMPANY, KALAMAZOO, MICH.

New York 44 West Broadway San Francisco 135 Bluxome Street

IF IT ISN'T A HUMPHREY IT ISN'T A RADIANTFIRE

How to Hang Garage Doors

National GARAGE HARDWARE



JUST "How To Hang Garage Doors" is told in our booklet "National Garage Hardware." There is nothing about the garage which is used as much as the doors and they should therefore be hung with the best equipment obtainable. Several methods are suggested in this booklet, which is fully illustrated. Fourteen different types of garages are shown with floor plans for each, showing door arrangement and dimensions. All the garage equipment illustrated is practical, has been thoroughly tested under all conditions and will give long and satisfying service.

We will be pleased to send you this booklet FREE. Write for it.

National Garage Hardware is available through Good dealers everywhere. Trade with our dealer in your community.

NATIONAL MANUFACTURING CO.

STERLING ILLINOIS